

**PERSONALITY
AND
SEXUAL OFFENDING
AGAINST
CHILDREN**

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Abstract

A progressive exploration of the role of personality in understanding offending in a child molester sample was undertaken. A particular focus was the extent to which the construct of personality could be used to reduce or account for some of the heterogeneity reported in this population. The studies used a sample of 110 participants in the Kia Marama treatment programme for sexual offenders against children. In the first of four studies these subjects were divided into four subgroups using cluster analysis of their scores on the Millon Clinical Multiaxial Inventory (MCMI) personality scales. The clusters resembled clusters found in other offender populations. A second study showed that while the four clusters were very similar on a range of demographic and background factors, they differed on a range of psychometric tests commonly used to assess child molesters. They were also found to respond differently to treatment. A third study investigated the possibility that the four clusters differed on factors that were directly related to their offending. The clusters were found not to differ in terms of their selection of victims, their relationship to victims, the extent and duration of their offending history, their convictions for sexual and other offences, their risk for future offending, or their actual re-offending rates following release after treatment. A fourth study further investigated the differences among the clusters regarding offending by analysing accounts of sexual offending behaviour against children held on police files. The clusters did not differ significantly on the measures used.

A clinical profile is offered for each cluster. The clinical implications for the results are discussed with respect to risk, needs, and responsivity. Further theoretical implications are discussed together with a consideration of the contribution that personality makes to an understanding of sexual offending against children. The studies did not establish a link between personality and the actual offending behaviour of child molesters.

Part 1: Introduction

1.1 Definitions, Extent, and Effects of Sexual Offending against Children

1.1.1 Definitions

The literature related to sexual offending against children employs a range of terms (child molestation, child abuse, sexual abuse, sexual offending, pedophilia to name a few). Sometimes these are used interchangeably and sometimes with specific definitions to distinguish them. In the mind of the public, sexual offending against children is often equated with pedophilia. Pedophilia refers to a disorder in which a person experiences recurrent, intense, sexually arousing fantasies, sexual urges, or behaviours involving sexual activity with pre-pubescent children (generally aged 13 or younger) which are distressing or cause impairment in a person's functioning and are present for at least six months. To be diagnosed with pedophilia a person must be older than 16 and at least five years older than the victim (APA, 1994). Not everyone who engages in sexual activity with a child will meet the criteria for the disorder pedophilia. The term therefore cannot be used interchangeably with the more general terms, "abuse", "molestation", and "offending".

Definitions also vary as to what constitutes childhood, with various cut-offs depending on the jurisdiction in which the study is carried out, or the focus of the study. Furthermore there are differences in what is defined as "abusive", with some studies including "non-contact" offences such as exhibitionism, and others deliberately excluding these while still others only consider penetrative offences (rape, unlawful sexual intercourse). This literature review will use the terms adopted by the studies it is describing so as to retain the intention of the original study. When not describing other studies the term "sex offender against children" or the briefer "child molester" will be used interchangeably.

These varying definitions have affected findings on the extent and prevalence of sexual offending against children, and on the conclusions that may be drawn concerning the psychological impact on the victim of these offences. Attempts to understand these are discussed next.

1.1.2 Extent

Sexual contact between adults and children has been observed and documented for centuries (Wasserman & Rosenfeld, 1992). It was not however recognised as a significant social problem until the 1980s, when two aspects of sexual offending came to be more fully appreciated (Hollin & Howells, 1991). The first aspect is that these offences occur at a rate far in excess of the official figures available at the time, and the second aspect is that rather than fitting into stereotyped caricatures, sex offenders and their victims can be found across all strata of society. This second

aspect will be examined later in this literature review but first, consideration will be given to the extent of sexual offending against children.

Early Approaches

The prevalence of child molestation was addressed in the literature as early as 1929 (Hamilton, 1929; Landis, Landis, Bolles, Metzger, Pitts, D'Esopo, Moloy, Kleegman, & Dickenson, 1940). These early studies showed sexual offending against children to be not uncommon (Peters, Wyatt, & Finkelhor, 1986). Growing interest in sex abuse during the 1970s led to a rediscovery of this early literature and early estimates of incidence gained credibility as they were repeatedly referred to. The widely quoted "one in four girls, one in nine boys" is thought to come from the work of Kinsey (Kinsey, Pomeroy, Martin & Gebhard, 1953). The 1980s saw a growth in the number of studies considering the prevalence of sexual offending against children and a concomitant increase in the range of estimates produced. Two types of studies can be distinguished: incidence studies and prevalence studies.

Incidence Studies

Incidence studies estimate the number of new cases of sexual offending against children which occur in a given time period, usually a year. Incidence figures are usually expressed as a number per time period, or a rate (number per 1000) per year.

The National Incidence Study (NCCAN, 1981) examined a random sample of 26 US counties and attempted to count all the cases that came to the attention of child protection agencies and other professionals. The study estimated that 44,700 children were sexually abused in the year starting 1 May 1979, (producing a rate of 0.7 per 1000 children). The Third National (USA) Incidence Study of child abuse and neglect (Sedlack & Broadhurst, 1996) concluded that over 300,000 children were sexually abused in the US in 1993. Finkelhor (1994) put the rate of reported sexual abuse at 2.4/1000. Supporting this, data from the National Child Abuse and Neglect Data System indicate that 2.3 women per 1000 reported experiencing childhood sexual abuse in 1998 (United States Department of Health and Human Service, 2000).

A limitation of incidence studies is their reliance on officially reported information. As not all cases of sexual abuse are reported such studies are likely to underestimate the true extent of sexual offending against children.

Prevalence Studies

Prevalence studies estimate the proportion of a population that have been sexually abused in the course of their childhood. Such studies generally begin from the premise that because most sexual abuse is never reported, more valid measures of scope could be obtained from victim or offender self reports. Peters *et al* (1986) described three broad sample sources for these studies. Early studies usually used highly selected volunteer samples recruited from specific sources. For example Landis *et al* (1940) used a sample of 153 “normal” and 142 psychiatric patients in New York City. From the 1950s college students were a popular sample source for researchers, while from the 1970s attempts were made to survey samples of the general population. Summarising these studies Peters *et al* (1986) reported that estimates of the prevalence of sexual offending against children range from 6% to 62% for females and from 3% to 31% for males. Finkelhor (1994) carried out a review of surveys completed in 21 countries and found that seven to 36% of adult women and three to 29% of adult men reported being sexually abused as children.

Limitations of these studies

The studies cited above indicate substantial variability in their estimates of incidence and prevalence of childhood sexual abuse. This may be the result of the wide range of methodological factors including definitions of abuse, sample characteristics (e.g. age of subjects, socioeconomic status of subjects, ethnicity of subjects, volunteer, college, community), interview formats (e.g. face to face versus phone interviews), and the number of questions used to elicit information about abuse (Peters *et al*, 1986).

Definition

The definition of what constitutes “sexual offending” used by a study will influence the prevalence found by that study. Early studies avoided definitions while more recent studies only provided them in general terms. Most of the studies considered in Peters *et al*’s (1986) review included non-contact activity (such as exhibitionism, or solicitation to engage in sexual activity where no physical contact occurs) in their definition of sexually abusive behaviour. Peters *et al* (1986) considered further factors that authors have used to define abuse including:

- Age differences between the perpetrator and the victim
- Whether the experience was characterised as abusive, coercive, or the result of force
- Whether to include or exclude incidents involving peers as perpetrators

Where authors rest on these deliberations affects the prevalence rate they find. Studies have also varied in their definition of childhood. Many early studies failed to report an upper age limit used to determine childhood. Studies since the early 1980s typically provide more detailed operational definitions of sexual offending and who it applies to. Most studies that report an upper age limit for childhood place it between 15 and 17 (Peters *et al*, 1986).

Sample Characteristics

Peters *et al* (1986) found little evidence that the characteristics of the sample used in prevalence studies influence the resulting prevalence rate. The age, socio-economic status, or education of respondents do not appear to affect prevalence rate (some studies have found slightly higher rates in younger age groups compared to older while other studies have found the opposite). Peters *et al* (1986) found that regional differences influence prevalence but observed that these may be influenced by migration (between the abuse occurring and the disclosure), and differences in respondent candour.

Methodological Factors

The data-gathering method used to obtain estimates of incidence and prevalence can influence the estimates actually reached (Peters *et al*, 1986). Numerous techniques have been used including household, telephone and mail surveys, self- and interviewer-administered surveys, and surveys administered with and without professional interviewers. Face to face interviews tend to yield greater prevalence rates than the other two methods. The method of screening survey participants for possible abuse experiences also accounts for some of the variation in rates.

It has been speculated that sexual abuse victims decline to participate in surveys because of embarrassment or trauma, and that the consequently low return rate for surveys artificially lowers the measured prevalence rate. The contrary has also been argued – that low response rates result in artificially high prevalence rates as victims select themselves into surveys as a means of confiding their history. Peters *et al* (1986) concluded that differences in prevalence rates could not be attributed to differences in response rates.

Early studies used samples of volunteers recruited through social networks or community organisations. More recent studies have used random samples of participants from the general population. These better reflect the actual incidence and prevalence of childhood sexual abuse in the community. Studies by Russell (1984) and Wyatt (1985) are considered by Salter (1992) to be amongst the most accurate in the literature. Both of these studies used the notion of “unwanted

sexual interactions” to overcome the requirement of an age differential between abuser and victims imposed by previous studies to rule out voluntary sex play among age mates (generally adolescents). Russell (1984) used a sample of 930 women and found prevalence rates of 28% for unwanted contact prior to age 14, and 38% for unwanted contact prior to age 18. Wyatt (1985), with a sample of 248 females, found a prevalence rate of 45% for unwanted sexual contact before the age of 18. Thus, with consistent definitions, and random samples from the general population, these two studies reached quite similar prevalence estimates.

While there are numerous inconsistencies in the literature on childhood sexual abuse, consistencies also emerge. Most studies find that the rate of sexual abuse of female children is higher than for males (by a factor of anything from 1.5 to 5.0). Intra-familial abuse is more common for girls than for boys, and represents almost half of the abuse experienced by girls (Grubbin, 1998). Most offenders are males: males perpetrated at least 90% of abuse in childhood as reported by women.

New Zealand Studies

An often quoted, frequently misunderstood, and now largely discredited survey of childhood sexual abuse in New Zealand was undertaken in 1979 by Jackson, who published a questionnaire on the effects of childhood sexual abuse in the *New Zealand Woman's Weekly* (circulation 220,000). 315 readers (0.14%) responded. The results (Jackson, 1980) became associated with the frequently quoted prevalence rate of “one in four” during the 1980s. The actual figure of one in four is derived from earlier studies by Kinsey. The work of Jackson is now recognised more for its social impact than for its scientific rigour in understanding the extent of childhood sexual abuse in New Zealand.

Ferguson, Horwood & Lynskey (1996) examined the impact of reported childhood sexual abuse by adults prior to age 16 in a sample of 1019 eighteen year olds. 913 (90%) reported no childhood sexual abuse. 24 (2%) reported non-contact abuse. 46 (5%) reported sexual contact not involving attempted or completed intercourse and 36 (4%) reported abuse involving actual or completed intercourse. Surprisingly, gender differences are not reported.

Department of Corrections figures indicate that approximately 227 individuals are sentenced to prison each year in New Zealand for sexual offences against children.

Conclusions

Prevalence rates vary considerably across studies. Definitions employed and the ways data are collected influence these rates. Larger scale studies using random samples from the general population are the most methodologically robust and produce rates just above the mid-point of the range (15-34% for females, 6-16% for males). These are somewhat lower than the rates reported by Russell (1984) and Wyatt (1985) who used a broad definition of sexual abuse ("unwanted sexual interactions"), which would account for the higher prevalence levels they reported.

Even if the lowest estimates are used they suggest that sexual abuse affects a substantial number of children, and leaves child sexual abuse as an ongoing social problem. The next section considers the impact of childhood sexual abuse on victims.

1.1.3 Effects

As evidence of the extent of sexual offending against children became available, efforts to understand the effects of such behaviour also increased in the 1980s. There is now a large collection of evidence demonstrating short- and long-term emotional and behavioural repercussions of childhood sexual abuse. Studies considering the effects of sexual offending on victims have tended to fall into two camps: those considering the immediate effects on child victims, and those considering the effects that endure into adulthood.

Short-term effects

The literature examining the effects of sexual abuse on children is prone to the same problems as prevalence studies. Findings depend, in part, on the population being studied, the definition of abuse or assault used, and the means by which the inquiry is carried out. The majority of studies that examine short-term effects of sexual abuse draw on samples from child protection or mental health agencies. They may therefore over-estimate the severity of symptoms associated with child sexual abuse in the general population.

Research on the effects of sexual abuse suffers from serious methodological and interpretative constraints. Only a small number of studies have actually examined children for instance. Alter-Reid, Gibbs, Lachenmeyer, Sigal, & Massoth's review (1986) found only one out of 39 references was an empirical study of sexually abused children, and another (Browne & Finkelhor, 1986) found only one of 49 references was for a controlled study of children published in a peer reviewed journal. Many studies lack appropriate control or comparison groups so it is often impossible to separate symptoms that are directly attributable to sexual abuse from those that may have existed

prior to the abuse (but are linked to it in other ways), including psychopathology in the child, and family dysfunction. Other symptoms may not be a direct result of the abuse but could be associated with the stress of disclosure.

Bearing the methodological limitations in mind Beitchman, Zucker, Hood, DaCosta, & Akman (1991) considered there to be sufficient evidence to conclude that victims of child sexual abuse are more likely than non-victims to develop some form of inappropriate sexual (or sexualised) behaviour. In children this tendency is observed as a heightened interest in, and a pre-occupation with, sexuality manifested through sex play, masturbation, seductive or sexually aggressive behaviour, and a level of sexual knowledge considered inappropriate for their age. In adolescence it is evidenced as sexual acting out, such as promiscuity, and a possibly higher rate of homosexual contact. Other non-sexual symptoms found in child and adolescent victims of sexual abuse (sleep disturbance, somatic complaints, fearfulness, withdrawal) are characteristic of clinical samples in general and could not be automatically considered as sequelae to sexual abuse.

Some studies have got around the use of control groups by considering the relationship between the severity of sexual abuse and resulting effects within a sample. Thus regardless of the quality of the sample selected a correlation between an event or effect and the *severity* of the abuse allow conclusions to be made that the event or effect is a result of the sexual abuse experienced.

Beitchman *et al* (1991) found several factors to be consistently associated with greater trauma in victims. These factors include: abuse involving penetration, force, or violence, and a close relationship between the victim and the offender (i.e. biological or step-father). There are probably interactions occurring between these variables. There is some evidence that the frequency and duration of sexual abuse is associated with severity of outcome. Findings regarding other abuse-specific variables (age of onset, gender of child) were considered by the reviewers to be equivocal.

Beitchman *et al*'s (1991) review indicated a high prevalence of divorce or separation and psychopathology (parental substance abuse, psychiatric disturbance) in the families of sexual abuse victims. Many of these symptoms tend to characterise children and adolescents from disturbed families in general so it is difficult to attribute outcome solely to the effects of sexual abuse.

In a recent review of social and emotional development following child sexual abuse Tyler (2002, p. 579) summarised the effects of child sexual abuse across three developmental periods for which there is reliable evidence. These are presented in Table 1.1.

Table 1.1 Effects of sexual abuse across three developmental periods

Developmental period	Effects
Early childhood (birth-6 years)	inappropriate sexual behaviour
Middle childhood	depression, suicidal ideation, PTSD, sexual anxiety, inappropriate sexual behaviour, “internalising” (e.g. low self esteem), “externalising” (e.g. anti-social behaviour)
Adolescence	risky sexual behaviour, depression, suicidal thoughts, “internalising” (e.g. low self esteem), “externalising” (e.g. anti-social behaviour), substance use, gang involvement, running away

Reviews consistently confirm that being a victim of sexual abuse is associated with a range of symptoms that become apparent a relatively short time after the abuse has occurred. Further research has considered more enduring symptoms or symptoms that do not emerge until later life.

Long-term effects

Long-term effects of child sexual abuse emerge differently to the short-term effects considered above. Some effects do not become noticeable or meaningful until adulthood. Sexual dysfunction, for instance, may not be detectable or even relevant to a pre-pubertal child, but becomes relevant as an aspect of adjustment in adulthood. Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia (1992) reviewed the literature on long-term effects of child sexual abuse. As with the studies of short-term effects many published studies were based on clinical samples, so confounding factors made it difficult to isolate the unique contribution that child sexual abuse may have made. The reviewers also found studies based on non-clinical samples, some using survey techniques, but noted that the way that many of the samples were collected made generalisation of the results to the general population difficult. Again control or comparison groups were rarities in the literature.

Effects on Sexual Behaviour

Sexualized behaviour is one of the few short-term effects consistently associated with child sexual abuse so a continuation of this into adulthood, as sexual dysfunction or disturbance, can be expected. Stein, Golding, Siegel, Burnam, & Sorenson (1988) used a random representative sample to examine the prevalence of sexual dysfunction or disturbance in 51 adult women victims of child sexual abuse. 20% reported one or more symptoms of sexual disturbance in the previous

six months. These women reported lifetime prevalence rates of 36% for fear of sex, 32% for lowered sexual interest, and 36% for lowered sexual pleasure. Other forms of sexual disturbance or dysfunction were not reported by the study.

Stein *et al* (1988) did not include a control group of non-abused respondents. General population data are available for sexual problems from Frank, Anderson, & Rubinstein (1978). They found that 31% of women and 33% of men in a sample of 100 “normal” couples complained of sexual dissatisfaction, suggesting a high base rate for sexual problems in the general population. Sexual dissatisfaction is not the same as fear of sex and a lifetime of lowered sexual interest and pleasure, however.

The proportion of sexual disturbance in the general population attributable to a prior history of child sexual abuse remains unknown (Beitchman, *et al*, 1992) but some conclusions can be drawn. Studies examining father-daughter incest or abuse involving penetration produce the highest rates of sexual disturbance. Attitudes towards sexuality develop over time and are influenced by moderating variables that serve to increase or decrease the long-term impact of sexual abuse. Sexual abuse is therefore likely to exert its effects in the context of the child’s other experiences.

A small number of studies have examined the association between a history of child sexual abuse and later homosexual behaviour. The majority of these relied on clinical samples. Several reports have shown a relationship (e.g. Fromuth, 1986; Runtz & Briere, 1986). Beitchman *et al* (1992) conclude that there may be a small but significant increased rate of homosexual activity among women who have been sexually abused in childhood.

Emotional Functioning

There is evidence that women with a history of child sexual abuse, compared with non-abused women, suffer from generalised emotional symptoms such as fear, anxiety, and depression (Mullen, Martin, Anderson, Romans, & Herbison, 1993) and other psychiatric symptoms (e.g. Rowan, Foy, & Rodriguez, 1994).

Stein *et al* (1988) found a current prevalence rate for anxiety disorders of 28% for adult victims of child sexual abuse (n=51), compared to 9% for non-abused women (n=1307). The lifetime prevalence of anxiety disorders was 37% for victims of child sexual abuse compared to 14% for controls. Three out of seven studies considered by Beitchman *et al* (1992) which showed a positive relationship between child sexual abuse and adult anxiety symptoms also reported that the

use of force or threat had been common amongst child sexual abuse victims. It is therefore not clear whether the presence of anxiety symptoms in women sexually abused as children is independent of force or threat of force.

Six out of eight studies reviewed by Beitchman *et al* (1992) found an association between child sexual abuse and depression during adulthood. Suicide has also been associated with child sexual abuse (Briere & Runtz, 1986) but not in all studies (Sedney & Brooks, 1984; Peters, 1988). Beitchman *et al* (1992) concluded that evidence does not support a link between suicidality and child sexual abuse in the absence of force or threat of force, but that suicidality is related to physical and sexual abuse having occurred concurrently in childhood.

Ferguson *et al*'s (1996) New Zealand study found that those in a large birth cohort sample who reported childhood sexual abuse had statistically significant higher rates of major depression, anxiety disorder, conduct disorder, substance use disorder, and suicidal behaviours than those not reporting abuse.

There is evidence that women who have been sexually abused as children go on to be re-victimised (for instance through battering) at rates greater than control groups (e.g. Russell, 1986). Beitchman *et al* (1992) reported that the majority of studies they reviewed found an increased risk of re-victimisation among those sexually abused as children.

Abuse-specific Variables

The effects of abuse-specific variables on the emergence of adult symptomatology have also been considered. The relationship between age of onset of abuse and outcome in adulthood remains unclear (Beitchman *et al*, 1992). More evidence exists to support a more traumatic impact of post-pubertal abuse than pre-pubertal abuse however. Long duration of abuse appears to be associated with greater impact. There is strong agreement in the literature that force, as an abuse-specific variable, has a long-term impact (e.g. Fromuth, 1986; Russell, 1986). Beitchman *et al* (1992) noted that despite the strength of the relationship between force and negative outcome in adulthood, the specific nature of the long-term effects of force remain unclear.

Like force, abuse that involves penetration (intercourse or oral-genital sex) is associated with negative outcome. Romans, Martin, & Mullen (1997) found that childhood sexual abuse involving vaginal penetration was associated with adult psychiatric disorder, low self-esteem, deliberate self-harm, eating disorders, increased sexual problems, pregnancy in adolescence, relationship

difficulties and increased likelihood of divorce. They found that childhood sexual abuse on its own was neither necessary nor sufficient to produce these problems as other risk factors (e.g. poor parental mental health, poor relationships with parents, or physical abuse) also contributed to the outcomes. It is not clear, however, what the independent effect of penetration is as it often co-occurs with other variables such as force.

There is some evidence that abuse involving a father or stepfather is more traumatic than abuse by other family members or outsiders (Browne & Finkelhor, 1986; Russell, 1986). This may be due to the greater betrayal and loss of trust that occurs in when the abuser is a father figure (Russell, 1986). There may also be other severe consequences such as open conflict, family break-up, and unwillingness of others to believe the child. It is probable that intra-familial abuse occurs over a long period of time, so the sustained nature of the abuse might also exacerbate long-term sequelae. Ferguson *et al* (1996) found consistent relationships between the extent of childhood sexual abuse and the risk of developing a disorder, with those reporting abuse involving intercourse having the highest risk of disorder. These results persisted when findings were adjusted to control for a range of prospectively measured childhood, family and related factors.

Since the majority of victims of child sexual abuse are female (Finkelhor & Browne, 1985) relatively little attention has been placed on male victims. Beitchman *et al* (1992) review, however, suggest that the long-term impact of sexual abuse may be related to the victim's gender, with male victims showing a range of issues including sexual dysfunction, gender identity conflict, homosexuality, and an increased risk of perpetrating sexual abuse. As with other conclusions these remain cautious in the absence of controlled studies. The effects of sexual abuse on males have been recently reviewed by Romano & De Luca (2001) who report on supportive evidence for the incidence of depression, self-blame, low self-esteem, anger, anxiety, and sexuality problems in the male victims of child sexual abuse.

1.1.4 Conclusions

Despite the absence of well-controlled studies there is at least moderately strong evidence for an association between childhood sexual abuse and the occurrence of sexual problems, depression, suicidality, substance use, anxiety disorders, and re-victimisation in adulthood. The form of abuse experience is associated with the lasting effects, with penetrative and forceful abuse being associated with more severe long-term sequelae. Offending between father and daughter, and possibly the duration over which the offending occur are also associated with severity of symptoms. The following chapter moves to consider the people who perpetrate these offences.

1.2 Offenders

“It is important to separate fact from fiction with regard to sexual molestation of children and to dispel the stereotypes and myths pertaining to the offender that have developed in the absences of systematic inquiry. An accurate understanding of the characteristics of such assailants will improve the ability to work with both the offenders and the victims in whatever capacity, legal, medical, or the like. Myths and misconceptions can only serve to alarm us out of proportion and obstruct dealing with the issue in a rational, forceful and effective manner”. Groth (1979)

1.2.1 Introduction

The perpetrators of sexual offences against children have been studied with respect to a wide range of factors thought to be associated with their offending. They have been compared to non-offenders and offenders who commit other than sexual crimes. They have been divided into subtypes and typologies. Sophisticated models have been developed to account for the wide range of offending behaviour observed in this population.

The aim of this review is to illustrate the diversity of the population that commits sexual offences against children and the attempts made to capture this diversity. It considers research on the child molester population itself, covering descriptive research, research identifying risk factors for offending, and attempts to discriminate child molesters from other groups: non-offenders, other non sexual offenders, and sexual offenders against adults. More sophisticated attempts to understand sexual offending against children are examined through three multi-factorial theories on the development and maintenance of child molestation. Finally, attempts to reduce the heterogeneity of the population through typologies and sub-types are reviewed. First a brief summary of the psychological study of crime is presented to provide a context in which to consider the literature particularly related to sexual offending against children

1.2.2 The Psychological Study of Crime

The application of psychological theories to account for criminal behaviour most clearly started with psychodynamic accounts, for instance Alexander's use of the concept of the reality principle (Alexander & Healy, 1935), and Bowlby's (1944; 1946) analysis of maternal deprivation and delinquency. The influence of social learning theory is seen in the Differential Association Theory (Sutherland, 1947), and in later applications to aggressive behaviour (Bandura, 1973; Mischel, 1973). The works of Eysenck (1977) and others (e.g.

Blackburn, 1986) demonstrate the influence of personality theory. Cognitive psychology has impacted through several schools, firstly through studies concerned with social cognition and social information processing in offenders, e.g. empathy, social problem solving, moral reasoning and social perception (e.g. Ross & Fabiano, 1985; Novaco, 1994), and secondly through approaches portraying offenders as rational decision makers (e.g. Cornish & Clark, 1986).

The development of psychological theories to account for crime was followed by a succession of treatment approaches applied to offenders. Until the 1970s educational programmes, and counselling and group therapy methods based on psychodynamic principles dominated treatment approaches with offenders. Offender rehabilitation flourished in the 1950s and 1960s but took a significant hit in the 1970s. Martinson's (1974) review ushered in nearly two decades during which the generally accepted position on rehabilitating offenders was that "nothing works". This was in spite of Martinson (1979) recanting many of his earlier views.

In response to the domination of the "nothing works" view a body of evidence supporting rehabilitation began to accumulate (e.g. Gendreau & Ross, 1979) while therapeutic approaches became predominantly based on behavioural and cognitive behavioural principles. A series of meta-analyses published in the late 1980s and 1990s (e.g. Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen, 1990) concluded that offender interventions can have a small but significant effect in reducing re-offending, with combinations of certain treatment factors enhancing the effect. These findings contributed to a resurgence of rehabilitation with offenders. It is now generally accepted that treatment programmes based on cognitive behavioural techniques, that focus on the offending behaviour of high risk offenders, that are structured and have clear aims and objectives, and have support, management and evaluation to ensure integrity can significantly reduce the re-offending rates of those who complete them.

1.2.3 Early Approaches to Studying Sexual Offending

While the serious study of sex offenders is a recent phenomenon, paralleling the growth in research on victims described earlier, sex offenders have historically been observed in societies as objects of curiosity, firmly outside of society's boundary (Lanyon, 1991). Early attempts to understand sexual offending (Krafft-Ebing, 1886/1965; Ellis, 1899/1942, both cited in Lanyon, 1991) drew on theories of sexual deviance and viewed sexual offending as a permanent unalterable disorder. Freud (1905/1953, cited in Lanyon, 1991) viewed sexual

offending as a result of *sexual psychopathology*, a single character disorder that he considered to be highly resistant to change. So, according to the early theorists “once a pervert, always a pervert” as Lanyon (1991) put it.

This perspective had several effects. First it provoked attempts to develop a single theory of sexual psychopathology, usually involving psychoanalytic concepts and difficulties in psychosexual development. No single theory has been agreed upon however, although contemporary attempts will be reviewed later in this chapter. Secondly, because sexual psychopathology was viewed as a character disorder, behaviours were regarded as highly resistant to change, requiring lengthy treatment based on a restructuring of the character (Burgess, Groth, Holmstrom, & Segroi, 1978; Rada, 1978). These views remain evident in the judicial system, social services agencies, and the general public. A third effect was the tendency, until the 1970s at least, to group all sex offenders (child molesters, rapists, exhibitionists, voyeurs) together as “sexual deviates” (Overholser & Beck, 1989).

In the second half of the twentieth century the careful study of sexual behaviour began primarily through the work of Kinsey (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953) and Masters & Johnston (1966, 1970). An understanding of “normal” sexual behaviour emerged along with an appreciation that aspects of deviant sexual behaviour could be modified or controlled. The behavioural approach, which rejected the assumptions of aetiology held by earlier theorists, also influenced views of sexual deviation, and led to treatment focused on symptomatic changes, developing adaptive sexual functioning, and eliminating deviant thoughts, feelings and behaviours.

1.2.4 Studies of Sex offenders Against Children

The “typical” sex offender against children

Child molesters are often discussed in the literature as if they possess a standard set of characteristics or even a singular personality type (e.g. Conte, Foggarty & Collins, 1991; Craissati & McClurg, 1996). Courts, until the early 1990s at least, admitted expert psychological testimony supporting a homogeneous psychological profile for child molesters, only to have the testimony rejected at appeal (Peters & Murphy, 1992). Here is what is often considered as the “classical profile” (Okami & Goldberg, 1992) of the sexual offender against children. He is characterised by:

- a sense of inferiority, a need for dominance, sexual inadequacy, (Karpman, 1959, Storr, 1964),
- shyness, limited assertion, social inadequacy (Finkelhor, 1984; Langevin et al, 1985; Williams & Finkelhor, 1990),
- low self-esteem and self efficacy (Williams & Finkelhor, 1990, Hall, 1989),
- fear of adult females, attraction to force and dominance, and narcissism (Langevin, Hucker, Ben-Aron, Purins, & Hook, 1985a),
- introversion (Wilson & Cox 1983),
- dependency and passivity (Walters, 1987, Williams & Finkelhor (1990)
- proneness to feelings of depression or inadequacy at the time of their offending (Pithers, Kashima, Cunningham, Beal & Buell, 1988),
- proneness to paranoid thinking (Williams & Finkelhor, 1990)
- proneness to rationalize behaviour and externalise responsibility to others who are seen as hostile (Williams & Finkelhor, 1990),
- psychopathy or psychopathic deviance (Williams & Finkelhor, 1990, Langevin, Hucker, Ben-Aron, Purins, & Hook, 1985a, Lee, 1982).

Amongst lay persons and the press the stereotype might be exaggerated to the “dirty old man in the trench coat waiting at the school gate”, a socially marginalised and unstable figure. The overall portrait of child molesters is based largely on clinical impression (Langavin, 1983; Langavin *et al*, 1985a; 1985b Okami & Goldberg, 1992). Ironically, clinical experience as well as research, indicates that child molesters can be as diverse in their characteristics and behaviour habits as many other large diagnostic groups such as "criminals", "alcoholics" or "schizophrenics". Perhaps with the only exception being their engagement in sexual contact with children, child molesters have been shown to be a very diverse population. Maletsky (1991) concluded that there are currently no agreed upon or scientifically verifiable persistent traits or behaviour patterns in the child molester population. That they do not fit one stereotype may be one reason why they are so successful at remaining undetected (Blanchard, 1995).

Scientific investigation of offending requires an adequate description of offender characteristics as an essential first step (Hempel, 1965) but Knight, Rosenberg, & Schneider (1985) complained that the quality of descriptive data on sex offenders has been “so compromised by definitional and sampling limitations that they provided at best only a weak basis for developing scientific theories of sexual aggression” (p. 222-223). They identified definitional problems in what constitutes a sexual offence, vague specifications of legal charges, inclusion of groups no longer considered sexual offenders (e.g. homosexuals), and biased sampling procedures. Some progress has been made since these comments were made. The following provides a review of the literature relating to key aspects of the descriptive research that has taken place with sexual offenders against children.

Childhood Risk Factors and Pre-cursors of Offending

Researchers have sought risk factors for the development of sexual offending against children in the backgrounds and childhoods of offenders. Given the common view, outlined above, that sexual offending is one manifestation of sexual deviance, it is not surprising that the early sexual histories of child molesters have been the focus of detailed examination.

Studies indicate that child molesters are more likely than other offender groups to report childhood sexual victimisation and bullying (Craissati & McClurg, 1996). Studies of childhood sexual abuse among sex offenders report a range of results from zero to 70% of sex offenders against children reporting having been abused as a child (Greenberg, Bradford & Curry, 1993; Groth, 1979; Seghorn, Prentky & Boucher, 1987; Tingle, Barnard, Robbins, Newnam & Hutchinson, 1986). Graham (1996) found 46% of offenders reported experiencing abuse by females and 78% reported abuse by males. The studies are limited by the use of self-report, and varying definitions of abuse used. Differing motivations of subjects to disclose histories influence reporting rates (Garland & Dougher, 1990) with higher rates reported when inquiry is made of offenders during or following treatment (Graham, 1996; Worling, 1995). This could be due either to the trusting relationship the offenders established with therapists or, more sceptically, that the offenders learned to provide an acceptable account for their offending.

Common psychological responses to having been a victim of sexual assault are found in child molester populations (Graham, 1996), including substance abuse, antisocial behaviour and “re-enactment” of abuse. Sex offenders have been found to be more dissociated than non-sex

offenders and a community control group. Offenders who had not been abused showed less alienation; those with the greatest evidence of abuse (i.e. both sexual and physical) showed the greatest level of alienation.

Sexual offenders against extra-familial boys and younger children tend to report higher prevalence rates of being abused themselves as children (Gebhard, Gagnon, Pomeroy, & Christenson, 1965). Worling (1995) reviewed earlier research showing that 75% of offenders against males report having been a victim of sexual assault compared to 25% for offenders against female children, peers, or adults. Not all studies have found this distinction however (Langevin & Lang, 1985; Langevin, Day, Handy & Russon, 1985) and the point remains that most male victims of sexual assault do not become offenders.

Freund (1994) compared different groups of sex offenders on self-reports of childhood sexual abuse and found that prior sexual abuse did not in general relate to sex offending in adulthood. Groups were classified by offence and preferred partner. Prior abuse history only related to the group who demonstrated sexual interest in children *and* offences against them. Those with sexual interest in female adults and sexual offences against children and those who sex offended against adults did not demonstrate a relationship with previous abuse.

Greenberg, Bradford, & Curry (1993) found a link between the reported age at which child molesters were molested themselves and the age of their own victims. Offenders sexually attracted to pre-pubertal children reported being sexually abused during the pre-pubertal period of their childhood, while offenders sexually attracted to pubertal children reported being sexually molested during puberty. Offenders sexually attracted to children less than five years old reported being abused at a younger age than the group attracted to pre-pubertal children although this was not statistically significant.

Hanson & Slater (1988) completed a large-scale review and meta-analysis of the literature and found that on average about 28% of adult and adolescent sex offenders against children described sexual victimisation in their own childhood. This is higher than in non-offender community samples of men, which tend to show rates between 6 and 16 %. They observed that there might be a tendency for non-offenders to under-report experiences of childhood sexual abuse while sex offenders may over-report it to gain sympathy or excuse their behaviour. Those who offended against both genders reported the highest rates of such abuse.

Offenders against boys were significantly more likely to report having been abused themselves as children than those whose victims were girls.

The most straightforward way theoretical account for the contribution of childhood sexual abuse to the later commission of sexual offences is that through a “cycle of abuse” children learn behaviours that are modelled for them. Another explanatory model indicates that childhood victims of sexual offending experience a “stigmatising dynamic” in which they see themselves as “bad” and act out aggressive feelings (Finkelhor & Browne, 1985; Ryan, Lance, Davis, & Issac, 1987). The dual hypotheses that sexual abuse in childhood serves as a model for later sexual offending, and influences an impaired capacity for intimacy in adulthood have also been offered (Hall & Hirschman, 1991; Marshall & Barbaree, 1990). In Marshall’s (1989) model sexual offending is postulated to serve as a substitute for intimacy. The role of intimacy in sexual offending will be reviewed in more detail in a later section.

The inter-relationship amongst explanatory models is complex, and although many seem clinically intuitive, they remain difficult to verify (Haywood, Kravitz, Wasyliv, Goldberg, & Cavanaugh, 1996). Most victims of abuse do not go on to sexually offend against others, and the issue of why, if sexual abuse in childhood is experienced as distressing, would someone who is abused go on to abuse someone else, remains. Studies may have confounded different types of abuse or neglect experiences – sexual abuse co-existing with other forms of abuse that do have a direct relationship to subsequent sexual offending. It is also possible that the effect of multiple forms of abuse is additive and that this might explain why child victims of sexual abuse are over-represented in the adult offender population.

Research indicates that factors other than sexual abuse mediate between childhood experiences and the commission of sexual offences as an adult. There is evidence that witnessing or experiencing violence as a child predicts sexual offending in adulthood and some sex offenders report experiencing higher rates of physical punishment than other offender groups (Awad, 1991). Widom (1996) compared victims of sexual abuse to victims of physical abuse and neglect, and non-victims. Victims of physical abuse or neglect were more likely than victims of sexual abuse to be arrested for sex crimes. Male sexual abuse victims were not at increased risk of rape or sodomy convictions compared to physically abused or neglected or male controls. When abuse was carefully differentiated, the effect of sexual abuse as a cause of sexual assault in adulthood is removed.

Skuse, Bentovim, Hodges, Stevenson, Andreou, Lanyado, New, Williams, & McMillan (1998) studied boys aged 11-16 who had been the victims of sexual abuse. Boys who went on to sexually abuse others differed from boys who did not in the amount of family violence they had witnessed before their offending took place. These findings may only apply to those offenders whose offending begins in adolescence but they are consistent with the findings of Prentky, Knight, Sims-Knight, Straus, Rokous, & Cerce (1989) who examined developmental antecedents of sexual aggression by interviewing 82 inmate sex offenders in relation to early caregiver and institutional history. They found that severity of aggression rather than frequency was predicted by childhood factors.

Prentky, Knight, Sims-Knight, Straus, Rokous, & Cerce (1989) found that caregiver inconsistency and sexual deviation were related to severity of sexual aggression and childhood and juvenile institutional history, and physical abuse and neglect related to severity of non-sexual offending. Kobayashi, Sales, Becker, Figuredo, & Kaplan (1995), in an interesting result, found maternal bonding to be a protective factor against sexual aggressive tendencies in a study of 117 adolescents.

Factors during adulthood may interact with abuse experiences to influence sexual offending. Haywood, Kravitz, Wasyliw, Goldberg, & Cavanaugh (1996) found that adult (i.e. current) psychopathology measured by the MMPI, lower educational status, and non-cleric status¹ were significant covariates with sexual abuse history in predicting sexual offending in adulthood. When these factors were taken into account the primary association between having been sexually abused as a child and adult sexual offending against children was weakened but remained statistically significant.

Briggs & Hawkins (1996) found differences between prisoners convicted of a sexual offence who reported being victims of childhood sexual abuse and non-sex offender community volunteers who made similar claims. Offenders were more socially disadvantaged and reported a greater frequency of abuse and a larger number of perpetrators. They viewed abuse as inevitable and a normal expectation. 69% of offenders reported liking the abuse compared to 17% of the non-offenders. Fewer offenders reported the abuse - only 14% overall reported.

¹ The study compared clerics who had offended to non-cleric offenders, and non-offending control groups

Experiencing abuse does not appear to affect the ongoing risk for further offending. Hanson & Bussiere (1998) evaluated factors associated with further sexual offending reported in the literature involving over 16,000 sex offenders in total. They found a non-significant negative relationship between a history of sexual abuse and re-offending of -0.01.

Clearly not all men who sexually offend against children have a history of abuse, so such a history is not a necessary contributor to sexual offending. Similarly, because other factors have been shown to also play a role in the development of sexual offending (e.g. Craissati & McClurg, 1996; Seghorn, Prentky & Boucher, 1987) a history of sexual victimisation is not sufficient in itself to account for offending. Thus the life traumas or experiences once thought to be integral factors influencing an individual's perpetration of sexual offences have been comprehensively questioned (Berner, Berger, Guitierrez, Jordan, & Berger, 1992). Reporting on an extensive review the *Report to the United States House of Representatives* (United States House of Representatives, 1996) concluded that "further research would be necessary to determine what kinds of experiences magnify the likelihood that sexually victimized children will become adult sexual offenders against children and, alternatively, what kinds of experiences help prevent victimized children from becoming adult sexual offenders against children".

Offending Behaviour

Sex offenders who offend against children are the group of sex offenders considered most distinct from the general population (West, 1983). Among criminal populations they are often selected for special consideration, with particular procedures for their correctional management, and specific treatment programmes (e.g. Hudson, Wales, & Ward, 2000). Sex offenders against children may offend for different reasons than other offenders. For instance, and unsurprisingly, sex offenders against children have greater sexual interest in children than other offenders (Quinsey, 1986). Sexual interest in children has been correlated with sexual offence recidivism among sex offenders against children by Barbaree & Marshall (1988) and Rice, Quinsey, & Harris (1991) but not by Marshall & Barbaree (1988). Compared to non-sexual offenders, child molesters tend to be older, more often married, less educated, and have fewer criminal convictions for non-sexual crimes (Baxter, Marshall, Barbaree, Davison, & Malcolm, 1984; Hanson, Scott, & Steffy, 1995; West, 1983) hence the commonly held view that sex offenders are "specialists", committing almost exclusively sex crimes (Andrews &

Bonta, 1998; Baxter, Marshall, Barbaree, Davison, & Malcolm, 1984; Hall, & Proctor, 1987) or at least a “distinct type of offender (Hanson, Scott, & Steffy, 1995).

A number of studies show that individuals who commit sexual offences also commit non-sexual crimes however, suggesting that they are not complete specialists. Weinrott & Saylor (1991) interviewed 99 institutionalised sex offenders (against both adult and child victims) who reported over 19,000 offences during the year prior to incarceration that were not sex related. Some, but not all, were committed during the commission of sexual offences (e.g. kidnapping a child). The 67 child molesters reported a high number of non-sexual offences (8219). The 21 incest offenders reported 2080 non-sexual offences. Two outliers in the sample might have influenced the results however in accounting for 40% of the non-sexual offences committed by the group. In another retrospective study Maletsky (1991) found that 24% of 5000 sex offenders treated at an outpatient clinic had histories of non-sexual offences. Longitudinal studies show a similar picture. Hanson & Bussiere’s (1998) meta-analysis found a re-offending rate for non-sexual offences of 12.2% over an average of four and a half years. Child molesters showed a non-sexual violent recidivism rate of 9.9%.

Chaffin (1994) calculated that 72% of the re-arrests reported by Berliner, Miller, Schram, & Miller (1991) for sex offenders were for non-sexual offences. Hanson, Scott, & Steffy (1995) conducted a long-term follow up of sex offenders against children and non-sexual offenders released from a maximum security provincial prison in Ontario in the 1960s and 1970s. Prior to their index offences 40% of the sex offenders against children had convictions for non-violent offences and 16% had convictions for non-sexual violent offences. Following release 62% of the sex offenders against children were reconvicted over the next 15 to 30 years. 41% were reconvicted of non-violent offences while 14% of the sex offenders against children were reconvicted for a non-sexual violent offence. Combined these results indicate that as a population child molesters are not complete specialists although they are less likely than other offender groups to have committed other types of offences.

Rape versus child molestation

A considerable number of studies have compared the characteristics of sexual offenders against adults (rapists) to offenders against children. The general picture that emerges is that rapists are more similar to non-sexual offenders than child molesters are in terms of non-sexual offending. Compared to rapists, child molesters have a lower rate of convictions for

non-sexual offences, although this is still higher than the general population. Gebhard, Gagnon, Pomeroy, & Christenson (1965) found that sex offenders against adults and minors were more likely to have juvenile criminal records than sex offenders who only targeted children. Baxter, *et al* (1984) divided 144 convicted sex offenders into four groups: men who assaulted peer age victims, those with victims aged between 12 and 16, those with female victims younger than 12 and those with male victims younger than 12. All had criminal histories but the men who had offended against girls younger than 12 had on average less than half the theft convictions and a significantly lower number of convictions for non-sexual assault. The non-sexual offence profiles of the other groups were very similar.

In the United Kingdom Grubin & Gunn (1990) found that over 80% of convicted rapists had previous criminal histories while in comparison Gibbens, Soothill, & Way (1978, 1981) reported that of all father and brother incest offenders before the British courts in 1951 and 1961, 31% had previous non-sexual convictions, while 40% of offenders convicted of unlawful sexual intercourse had previous non-sexual convictions. Kuznestov, Pierson, & Harry (1992) found that rapists have more previous convictions for property crimes and use more violence in their prior and current offences than sex offenders against children.

Longo & McFadin (1981) compared the sex offending history of 43 convicted rapists and 41 child molesters undergoing treatment in a Forensic State Hospital. Rapists had a higher rate of past history of fetishes than child molesters. Conversely child molesters had a higher rate of past history of transsexualism desires. Voyeurism was found to be twice as common for rapists. Other paraphilias were similar for the two groups. The age of first sexual offence was similar for the two groups. No statistical analysis was undertaken to test whether differences were significant. No information was provided on the percentage of offenders who refused to take part but there are indications that it was a large number.

A number of studies have considered the actual offending behaviour of sex offenders. Mair (1993) examined data on 100 male sex offenders incarcerated in two Scottish prisons and found that offenders who had committed penile penetration of the anus or vagina were younger and had a less repetitive pattern of offending than those who did not penetrate their victims (regardless of the victim's age).

Kuznestov, Pierson, & Harry (1992) compared sex offenders with respect to the age of their victims. They found a clear tendency for the incidence of manipulation of breast and/or genital fondling to decrease as victims' age increases and for vaginal intercourse to occur more frequently with the age of the victim. They found oral and anal acts to take place less frequently with victims over 10 years old. They found the age the offender is committed to prison to be inversely proportional to the age of their victims.

The scope of sexual offending

No literature review on sexual offending behaviour would be complete without mentioning the work of Gene Abel. Abel and his colleagues (Abel, Becker, Cunningham-Rathner, Mittelman, & Rouleau, 1988; Abel, Becker, Mittelman, Cunningham-Rathner, & Murphy, 1987) conducted two well-known and influential studies into the characteristics of child molesters. These studies are notable for the extensive lengths taken to ensure confidentiality for subjects thereby maximizing the truthfulness of the information they provided about their offending. The results indicated that under other conditions child molesters under-report the extent of their offending. Extra-familial offenders in the studies, for instance, were found to have an average of 19.8 victims (for those with female victims) and 150 victims (for those with male victims). They also reported engaging in multiple paraphilias, far greater than had previously been assumed.

Subsequent findings have raised questions regarding the extent to which the Abel studies can be generalised. Marshall, Barbaree, & Eccles (1991), for instance, found only 8-14% of their sample reported multiple paraphilias. They found molesters of extra-familial girls reported an average of 4.7 victims, molesters of extra-familial boys reported 3.3 victims, and molesters of intra-familial girls 1.8 victims. The extra measures that Abel took to ensure confidentiality are what set the study apart from others and probably account for most of the differences between it and other studies. However Abel's sample included rapists, exhibitionists and other sex offenders who met the diagnostic criteria for paraphilia (using a diagnostic approach that differed from the nomenclature of the time: DSM-III-R, which counted non-enduring sexual interest as a paraphilia) whereas Marshall *et al* included subjects on the basis of detected sexual offending with children.

Sexual Arousal and Preference in Sexual Offending Against Children

Deviant sexual arousal is considered a defining characteristic of sexual offenders and a large body of research exists on the topic. Reflecting the theoretical assumption, introduced above, that sexual offending is synonymous with sexual deviance it is commonly contended that offenders are driven by a preference for deviant sex to engage in deviant sex. Consequently it is often considered that a defining feature of child molesters is a sexual interest in children.

McGuire, Carlisle, & Young (1965) wrote a highly influential theoretical article, reflecting their radical behaviourist position, hypothesizing that sexual preferences are conditioned by early sexual experiences, which provide fantasy material used later in life to accompany masturbation. This pairing, according to the theory, produces sexual preferences. Laws & Marshall (1990) presented a conditioning theory of the acquisition and maintenance of deviant sexual preference and behaviour. In this theory deviant sexual preference is acquired through exposure to deviant sexual behaviour (pornography or experience), reinforced by fantasising and masturbation, and supported by attitudes generalised via social learning.

Marshall, Barbaree, & Eccles (1991) studied the onset of deviant fantasies in child molesters. Early onset of deviant fantasies was found especially where the target was a boy. Many respondents reported that they did not pair masturbation with deviant fantasies about children prior to offending however and 47% denied ever fantasising about children. 95% of the group shown to be strongly attracted to children using plethysmography however did admit to sexual fantasies about children paired with masturbation and 44% also reported that deviant fantasies preceded deviant actions offering partial support for the conditioning theory.

Freund & Kuban (1993) administered a questionnaire about the childhood desire to observe nudity to 589 men - 46 sex offenders against female children, 30 sex offenders against male children; 51 sex offenders against children of both genders and 462 subjects with no history of sexual contact with children. Results indicate that in general gender preference forms before age preference. Sex offenders against children were more desirous to see children nude when they were children than other groups. The erotic appeal of children of the preferred sex ceased at puberty for the group who had not offended against children. This offers some support for the role of early experiences in shaping basic preferences but does not provide complete support for the sexual preference hypothesis.

As with most of the factors considered in this literature review however the association between sexual preference and sexual behaviour is not straightforward. The sexual preference hypothesis has been supported by little more than anecdotal evidence (O'Donohue & Plaud, 1994; Laws & Marshall, 2003). As will be seen in the following studies not all those with self-professed deviant interests act on them. Furthermore, offenders do not universally demonstrate deviant interests.

Sexual attraction to children does not seem to be limited to the child molester population. Briere & Runtz (1989) found that 21% of 193 male undergraduates indicated at least one instance of sexual attraction to a small child, 9% described having had sexual fantasies involving children, and 5% reported having masturbated to fantasies of sex with children. Briere, Henschel, & Siljanich (1992) reported that of 318 university students, 4.7% of males and 4.2% of females reported some hypothetical likelihood of having sex with a child if no one were to know and there was no punishment. Siljanich & Briere (1996) found evidence of self-reported sexual interest in children in a sample of 99 male and 180 female university students. Males showed more sexual interest than females. Interest was associated with low self-esteem, greater sexual conflicts, more sexual impulsivity, social isolation, more pornography use, and a lower capacity to attract sexual partners. These studies indicate that sexual interest in children occurs amongst those who have not offended. The remainder of this section considers the role of deviant arousal amongst sexual offenders.

Measurement of deviant sexual arousal

The accurate identification and management of deviant sexual arousal remains one of the most important aspects of assessing and treating sex offenders against children. The assessment of deviant sexual preferences, called phallometry or penile plethysmography, is a key component of sex offender assessment. Plethysmography (Freund, 1963; O'Donohue & Letourneau, 1992; Zuckerman, 1971) involves measuring a subject's erectile responses to various erotic stimuli including still or moving visual stimuli, and audio descriptions (used independently or in conjunction with visual stimuli). The stimuli presented are generally classified as "deviant" (e.g. involving sex with children) or "appropriate" (e.g. mutually consenting sex between adults). A ratio representing the subject's relative arousal to these two classes of stimuli is calculated. Early procedures (Freund, 1963) used volumetric changes (i.e. changes in the length and circumference of the subject's penis) as the measure of erectile response. Other

researchers have employed circumferential measures mainly because of their simplicity and low cost. These have become the most popular method of measuring erectile responses.

Freund (1967a, 1967b), using volumetric measures, and Quinsey (Quinsey, Chaplin, & Carrigan, 1979; Quinsey, Steinman, Bergersen, & Holmes, 1975), using circumferential measures, were the first to evaluate sexual preference in child molesters. The two series of studies consistently demonstrated that non-familial offenders, as a group, display deviant arousal to children, whereas incest offenders, as a group, appear to differ little from non-offender males. This provided early support for the sexual preference hypothesis (Barbaree, 1990).

Further support for this came from Barbaree & Marshall (1989) who measured penile tumescence in child molesters using stimuli depicting different ages. They were able to sort each individual subject's responses to females ranging in age from 3 to 24 into different profiles depending on whether they showed greatest arousal to adults, teenagers, or children. 1 in 3 non-familial child molesters exhibited exclusive arousal to children. Other groups showed arousal across all age groups or bi-modal arousal. All groups showed some degree of heterogeneity.

Marshall (1996; Marshall & Fernandez, 2000; Marshall & Fendandez, 2003) and others have raised important issues about phallometry. Marshall's concern is that apparent differences between groups of offenders and non-offenders do not tell what to expect with an individual, and that, even at a group level, differences are not always observed consistently with some types of offenders. He considers that analysis of data related to child molesters offers more support for phallometry than those arising from other classes of offenders (rapists, exhibitionists) but describes these data as "not resoundingly encouraging".

Other limitations and concerns regarding phallometry include consistent findings that around 20% of men who admit to committing sexual offences against children display levels of arousal during assessment that are too low to interpret (less than 10% of a full erection). Marshall (1997a) estimates that the DSM-IV (APA, 1994) definition of pedophilia as relating to the presence of "recurrent intense sexually arousing fantasies, sexual urges, or behaviours involving sexual activity...with children" probably only applies to 25-40% of child molesters. Other subjects are known to "fake good" or simply suppress erectile responses (Freund, 1993,

Marshall & Fernandez, 2000). There is also a recognised lack of discriminant utility with juvenile offenders (Hunter & Becker, 1994).

Studies evaluating phallometry are not always comparable due to subject differences (e.g. the inclusion or exclusion of “deniers; Marshall & Fernandez, 2000). Many have inadequate sample sizes. There is a lack of standardised procedures for administering penile plethysmographic assessments with respect to measures (volume, circumference), stimuli (slides, film, videotape, audiotape, covert images; Marshall, 1996, Marshall & Fernandez, 2000), and response differences (raw scores, percentage of full erection, z scores, ratios of responses to deviant and appropriate images; Marshall & Fernandez, 2000). Finally there are ethical issues around the use of the procedure (Marshall, 1996). Research conducted in New Zealand (Johnston, Hudson, & Marshall, 1992) has similarly inspired limited confidence in the reliability of data obtained from phallometric assessments, with the authors finding multiple sources of error variance.

There are alternatives to plethysmography. Laws, Hanson, Osborn, & Greenbaum (2000) report encouraging reliability results from a card sort procedure which they compared to direct monitoring of sexual response to erotic slides and to audio material. They found all three measures had high reliability and significantly differentiated boy-object offenders from girl-object offenders. The card sort measure showed the greatest classification accuracy, but a combination of all three modalities was more accurate than any single measure. This puts the role of plethysmography into its appropriate context, to be used cautiously and systematically as part of a broad assessment using multiple modalities of data collection.

Concerns regarding plethysmography led Marshall (1996) to question the sexual preference hypothesis underlying it. However it is probable that phallometry, with its singular focus on penile responses, simply does not measure “true” sexual preference (Ward & Hudson, 1997). Konopasky & Konopasky (2000) argue that concerns regarding the reliability of plethysmography are inconsistent with the results of earlier studies demonstrating its usefulness. In defence of its utility with sex offenders against children Hanson & Bussiere’s (1998) meta-analysis reported a respectable correlation of .32 for phallometrically assessed pre-treatment sexual preference and subsequent re-offending. Recent studies assessing post-treatment phallometric results or changes in deviant arousal between pre- and post-assessment have found that neither predict re-offending (Marshall & Fernandez, 2003). Indeed Marshall

(1997b) conducted a small-scale experiment with 12 particularly deviant child molesters (on the basis of their pre-treatment phallometric responses). He withheld any discussion of or intervention directed at sexual preference during a comprehensive treatment programme focusing on other aspects of their offending. At post-treatment Marshall found a reduction in deviant arousal with these men. He uses these results to question whether the modification of sexual preference is even necessary.

Where does all this leave us? The results of early studies demonstrating differences between incest and non-familial offenders appear to stand and provide some support for the sexual preference hypothesis. Problems with standardisation and interpretation of individual results remain. Marshall (Marshall & Fernandez, 2000) appears to have accepted a degree of independence between the measure and the theory, and neatly restates the adage that “absence of evidence is not evidence of absence” in the following:

“If deviant responses are evident at phallometric assessment, then treatment needs have been identified. If however, a client displays either normative responses, or fails to show interpretable levels of arousal, then the phallometric evaluations have not advanced our understanding of the client’s needs or problems. He may still have deviant interest, but has successfully hidden them, or his offending may not be driven by deviant sexual interests” (p. 817).

Even so, questions remain about the necessity to directly target sexual preference in sexual offenders. The debate regarding the role of sexual preference is set to continue for some time.

Social Competence in Sex Offenders against Children

Although taking second place to the primacy of deviant sexual arousal, considerable research has been carried out into other characteristics of sex offenders that might explain their offending against children and play a role in their rehabilitation. Marshall (1971) argued that if the “sexual orientation” of child molesters is to be changed, away from children and towards consenting relations with an adult, then offenders need the necessary skills to act on these changed propensities. On the basic premise that offenders are attracted to children because they lack competency to form relationships with adults that meet their needs an extensive literature now exists on various aspects of social competence among child molesters. Early work examined general social skills in child molesters such as

conversational and relationship skills. Subsequent research has been carried out on assertiveness, social perception and cognition deficits, cognitive distortions and denial, empathy deficits, self esteem, loneliness, social isolation and impaired intimacy skills. Each of these will now be discussed.

Basic social skills

During the 1970s research focused on basic social skills of sex offenders. In one of the first empirical studies Barlow, Abel, Blanchard, Bristow, & Young (1977) compared the “heterosocial skills” behaviour of 10 sex offenders (various types) with 20 socially skilled males. They found deficiencies in conversation form, voice quality, and affect in the sex offenders. The grouping of all sex offenders together and the absence of proper control groups did not identify unique skill deficits amongst child molesters however. Gordon, Weisman, & Marshall (1980) found child molesters to be more socially anxious than other men and Stermac, Segal & Gillis (1990) provided support for the findings that child molesters are less skilled in conversations than other men. Segal & Marshall (1985a) examined heterosexual social skills in rapists and child molesters and compared them to non-sex offenders, socio-economically matched non-offenders, and university students. Their measure of social skill involved ratings of an actual conversation between each subject and a female confederate. The three offender groups were found to be socially deficit compared to both of the non-offender groups. Child molesters were the most deficient in social skills.

Assertiveness

Assertiveness covers such skills as the ability to generally express feelings, stand up for one’s rights, initiate and maintain interactions, deal with criticism and pressure, and make requests and appropriate demands (Henderson & Furnam, 1983). It commands attention from researchers because child molesters are thought of as passive, inhibited, and under-assertive individuals who struggle to face up to the requirements of adult relationships (Quinsey, 1986; West, 1983). The resulting sense of injustice, frustration, resentment, depression and vulnerability that failing to act assertively can provoke have been hypothesised to further increase the likelihood of offending (Eldridge & Wyre, 1998).

There is evidence to support these impressions. Abel, Mittelman, & Becker (1985) found that 40% of their sample of child molesters (and 47% of rapists) were under-assertive. Similarly Bard, Carter, Cerce, Knight, Rosenberg, & Schneider (1987) found child molesters to be

under-assertive compared to rapists, who they found to be overly aggressive. Overholser & Beck (1986) compared child molesters to rapists and non-offenders on a self-report measure of assertiveness (Rathus, 1973) and a conversation task. Child molesters rated themselves as the least assertive of the groups, and were, together with the rapists, significantly less skilled than the non-offender group on the behavioural task. Segal & Marshall (1985b) also found that child molesters rated themselves as less assertive than rapists and a non-offender control group. No significant differences were found between the groups on a role-play task however.

Marshall, Barbaree, & Fernandez (1995) found a group of child molesters to be less assertive than a group of college students but not compared to a community sample from a similar background. In a well-controlled study Fisher, Beech, & Browne (1999) compared 140 molesters with a control group of non-offenders (81 newly recruited male prison officers)² on a range of psychometric tests. Most child molesters were significantly under-assertive compared to non-offenders. The exception was a group of “low deviancy” offenders who did not exhibit a lack of assertiveness compared to non-offenders. This is not surprising given that this group is defined (Beech, 1998) as being closer to the normal range in terms of psychometric test responses but serves to once again illustrate variability within the child molester population.

Social perception and cognition

Several of the above studies highlight the role of cognitions in child molesters, finding that child molesters differ from others not only at the skill level but in terms of self perception and rating of their abilities. By the end of the 1980s reviewers were concluding that a clear pattern of deficits in general social skills had not emerged for either rapists or child molesters (Stermac, Segal, & Gillis, 1990). Researchers began to look beyond basic social skills to cognitions and perceptual factors that influence behaviour. They also began to consider behaviour more specifically related to intimate relationships. McFall (1990) highlighted the importance of evaluating social perception as well as actual skills and suggested that as well as the enactment skills, two additional sets of component skills should be examined: decoding and decision making.

² They chose this control group because of its demographic similarity to offenders with respect to social status and education. They argued that the control group, as new recruits deliberately selected for prison work, were not like the usually self-selected type prison officers who “may be regarded as having specific personality traits that could render them as not being normal at all”.

Studies have found decoding skill deficits in child molester populations. Segal & Marshall (1986) found child molesters to be poorer than rapists and non-offenders in predicting and evaluating their own performance in conversations with females. They were also lower in self-efficacy ratings. This is important since an individual's awareness of performance is a prerequisite for skilled behaviour. Pithers, Beal, Armstrong, & Petty (1989) found that many child molesters report a significant drop in self-confidence near to the time of their offending. Marshall, Barbaree, & Fernandez (1995) found that child molesters held inappropriate models of social behaviour compared to non-offenders. When asked to select the most appropriate from a choice of videotaped interactions depicting varying degrees of assertiveness, child molesters selected the vignette depicting unassertive behaviour. They considered as least appropriate the interaction that non-offenders considered the most appropriate.

The ability to recognise expressed emotion is critical both to the decoding stage of social processing (McFall, 1982) and to the ability to respond with empathy to the emotional distress of others (Marshall, Jones, Ward, Hudson, & McDonald, 1993). Hudson, Marshall, Wales, McDonald, Bakker, & McLean (1993) compared the ability of different types of offenders to accurately recognise emotion in the facial expression of others. Violent non-sexual offenders were the most accurate at identifying the emotional state of others. Sex offenders (child molesters and rapists) revealed relative deficits in emotional recognition, compared to other offender groups. In a second study child molesters were assessed on their ability to judge emotions in children compared to their ability to judge them in adults. Child molesters did not show greater deficits in judging the emotions of children, but did show poor judgement overall compared to a community control group.

How child molesters behave may be influenced by how they believe others will respond to them. Hayashino, Wurtele, & Klebe (1995) compared extra-familial child molesters and incest offenders to rapists, non-sex offenders, and a layperson control group and found that the child molesters showed a greater fear of negative evaluation than rapists and other subjects. Stermac & Segal (1989) compared cognitions of child molesters to rapists and non-offenders (clinicians, lawyers, and police). Each participant scored vignettes of offending behaviour for acceptability. Rapists responded similarly to other groups whereas child molesters saw children's behaviour as more seductive and saw children as more responsible for sexual contacts than the other groups. This could however be a social perception deficit or a more specific cognitive distortion (see below) held by child molesters to justify their offending.

Decision-making in child molesters has been looked at in at least one study. Marshall (1996) discussed an unpublished study that found that child molesters were as good as non-offenders at recognising a problem in a social situation and generating alternative solutions, they typically chose poor solutions and appeared to ignore the likely consequences of their choices.

Cognitive distortions and denial

As well as the broad social cognitions reviewed above, researchers and clinicians have observed the role of particular beliefs and attitudes used by sex offenders to direct, justify or endorse their behaviour. Distorted thinking is used by offenders to justify or rationalise their behaviour, minimise their sense of harm to victims, and in some cases to deny the occurrence of the behaviour or its effects. Johnston & Ward (1996) present a temporal framework separating cognitive functioning into periods prior to, during, and after an offence. This provides a useful means of organising the literature and will be used here. Ward, Fon, Hudson, & McCormack (1998) identified distinct cognitive distortions at each stage of the offence chain, with the nature of the distortion influenced by its function at the stage.

Pre-offence cognitions generally consist of belief systems, stereotypes, and attitudes (schemas) and their resulting decision processes. Attitudes and beliefs at this stage may function to validate offenders' sexual behaviour by undermining their own autonomy and objectifying their victims. Howells (1978) used a repertory grid technique to elicit the way child molesters construe children and adults. Offenders' constructs were more related to the children's submissiveness, innocence and cooperativeness than overtly sexual in nature. Child molesters construed children and adults in terms of dominance, with children being construed as non-dominant and easy to relate to and adults as overbearing and threatening.

Abel (Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984; Abel, Gore, Holland, Camp, Becker, & Rathner, 1989) developed a scale to assess distorted beliefs held by child molesters about adult sexual contact with children (e.g. sex between adults and children does not harm the child). Child molesters endorse a considerable number of the distortions (Abel *et al*, 1989), significantly more than rapists and non-offenders (Stermac & Segal, 1987).

Abel's scale is transparent in its intentions and therefore open to responding in a way that socially acceptable. To overcome this Segal & Stermac (1990) had subjects judge vignettes

depicting adult sexual contact with children. When the child's response in these was ambiguous, child molesters were more likely than other groups to perceive benefits for the child resulting from the contact, saw greater complicity on the child's part, and placed less blame on the adult.

There is variability within the child molester population with respect to the degree of distorted thinking they display. Hayashino, Wurtele, & Klebe (1995) found that extra-familial offenders had significantly higher cognitive distortions scores compared to intra-familial child molesters, rapists, incarcerated non sexual offenders, and non-offenders. They found no differences between intra-familial child molesters and the other groups. Fisher, Beech & Browne (1999) used the *Children and Sex Cognition Scale* (Beckett, 1987) and found significant differences between "high deviancy" child molesters (many victims, likely to have previous convictions for sexual offences, more likely to have abused males or both males and females, and more likely to have offended in extra-familial settings or in both intra- and extra-familial settings) and non-offenders in cognitive distortions regarding adult sexual contact with children. "Low deviancy" child molesters (including intra-familial offenders) did not differ from non-offenders in their endorsement of cognitive distortions. Low deviancy offenders may be genuinely less distorted than the high deviancy group or they could be more aware that holding such beliefs is unacceptable and therefore do not admit to them as readily.

Langton & Marshall (2000) noted that pre-offence cognitions, along with the expectancies they evoke directly influence the processing of external cues. They may influence sexual arousal (Segal & Stermac, 1990) and disinhibit sexually aggressive behaviour (Malamuth & Brown, 1994). When stimuli that activate sexually assaultative schema are present, distortions impact on the offender's personal control, compounding the effects of affective and situational elements that constitute a high-risk situation for the offender. Deviant cognitive scripts may be so entrenched and rehearsed that they distort offenders' appraisal of situations, increasing the likelihood that they make decisions that advance them towards the commission of an offence. Negative affective states constitute a primary pathway towards the commission of a sexual offence (Pithers, 1990). It is probable that cognitive distortions of the likes just reviewed facilitate this progression.

Cognitive distortions that arise during the offence result from the offender's selective attention to social information that is consistent with his pre-existing beliefs. This may

facilitate the offence by minimising awareness of distress and resistance from the victim that might otherwise inhibit offending behaviour. There has been some support for this contention. Hanson, Gizzarelli, & Scott (1994) found that child molesters tend to construe children as willing and motivated to engage in sex. Given Fisher, Beech, & Browne's (1999) finding, there is likely to be variability among child molesters regarding the pervasiveness and persistence of these distortions.

Cognitive distortions that occur after the offence deny, minimise, justify, and rationalise the offending behaviour (Murphy, 1990). They may allow offenders to manage the aversive emotional reactions and self-deprecation that offending evokes in some offenders. Selective recall of offence elements (e.g. victim compliance) maintains offenders' perceptions of the offence as acceptable behaviour. Offenders may use moral or psychological excuses (Murphy, 1990) to avoid responsibility and project blame. Ultimately these distortions influence the recurrence of offending behaviour. They are often evident in convicted offenders in treatment, or offered as reasons to decline to engage in treatment.

The extreme form of these distortions is denial. Marshall (1994) used two judges to independently rate denial and minimization in a group of 81 incarcerated child molesters. 31% of the sample categorically denied any involvement in the offence for which they convicted. A further 32% significantly minimised their role in the offences (e.g. attributed responsibility to factors outside themselves) or claimed to have engaged in only minimally offensive behaviour. Lund (2000) examined seven studies considering the role of denial in predicting sexual recidivism that had been included in Hanson & Bussiere's (1998) meta-analysis and found that denial was not a good predictor of sexual recidivism. This may be due to the wide variance in definitions used, and the differential treatment of offenders who express complete denial compared to those who do not.

Johnston & Ward (1996) outlined a social information-processing model of sex offenders' cognitions. The models these authors draw upon consider social perception in individuals to be necessarily limited in order to allow adequate functioning. Limitations are based on heuristic strategies that an individual employs. What an individual attends to, and neglects, is influenced by cognitive schemas, and is related to the underlying motivations for the behaviour. Johnston & Ward argue that, rather than being deliberately restrictive in the cognitive resources, sex offenders are deficient or dysfunctional in one or more cognitive

components. They propose that further research should address differences between sex offenders and others on the basis of the cognitive functioning (structures, propositions, operations and products) rather than just distinguishing sex offenders on the basis of their expressed attitudes and beliefs (i.e. the products of cognitive functioning).

Empathy

Empathy is said to involve at least three components: the cognitive discrimination of affective cues in others, the ability to assume the perspective and role of others, and a capacity for affective responsiveness (Fisher & Howells, 1993). The role of empathy in sexual offending was considered so significant that 94% of treatment programmes surveyed in North America in the early 1990s reported targeting victim empathy as a central feature of treatment (Knopp, Freeman-Longo, & Stevenson, 1992). Sex offenders are generally considered to lack empathy for their victims, a deficit which presumably allows them to commit harm to their victims without inhibitory concern. Supporting this presumption, empathy has been shown to be negatively correlated with aggression in general, and with physical abuse of children (Fisher & Howells, 1993). There is limited convincing evidence however that sex offenders actually lack empathy.

Marshall, Jones, Ward, Hudson, & McDonald (1993) examined generalised empathy in child molesters using an established empathy questionnaire (Davis, 1983). They found no deficits amongst incarcerated child molesters when scores were compared to available normative data but did find deficits in a community sample of sex offenders. Hayashino, Wurtele, & Klebe (1995) compared incest and extra-familial child molesters with rapists, non-sex offenders, and a layperson control group. The *Empathic Concern Scale* of the *Interpersonal Reactivity Index* (Davis, 1980), which incorporates two components of empathy (perspective taking and empathic concern), did not discriminate between child molesters and the other groups.

Fisher, Beech, & Browne (1999) used the *Empathic Concern Scale* to compare child molesters with non-offenders. Overall child molesters scored significantly *higher* on empathic concern than non-offenders. The British non-offenders used in the study scored lower than normative data obtained in North America but the child molesters matched the North American norms in terms of average empathy scores. Empathy varied across offenders however and most of the high empathy scores came from “low-deviancy” offenders.

Marshall, Jones, Ward, Hudson, & McDonald (1993) suggested that empathy deficits in sex offenders may be limited to their own victims or possibly the class of victims of sexual abuse rather than a general empathy deficit. Using their own victim empathy measure for child molesters, Marshall, Fernandez, Lightbody, & O'Sullivan (1994) found that child molesters did not differ from a matched group of non-offenders in empathy towards a child disfigured in a motor vehicle accident or to a child who was sexually abused by another person, but were most deficient in identifying and sharing the distress of their own victims.

Similarly, Marshall, Champagne, Brown, & Miller (1997) compared the ratings of non-familial child molesters with those of a group of non-offenders. Subjects were asked to rate the degree of empathy they felt for an accident victim, the victim of a sexual assault, and in the case of offenders, their own victim. Offenders demonstrated greatest levels of empathy for the accident victim and the sexual assault victim. They reported less empathy for their own victim. The non-offender group displayed greatest empathy for the sexual assault victim and then the accident victim (at the same level that the offender group ranked the accident victim and the sexual assault victim).

Fernandez, Marshall, Lightbody, & O'Sullivan (1999) also found that child molesters showed greater levels of empathy for an accident victim and for a victim of sexual assault by another offender, than for their own victim. They suggested that the molesters might have learned to inhibit empathic responses to their own victims, functioning to allow the offender to continue to offend without the negative self-referential evaluation (experienced as guilt or shame) that often accompanies transgressions. This is similar to the role of cognitive distortions.

From this brief review it is clear that empathy is not a one-dimensional characteristic that is either present or absent in offenders. It has individual, situational, and temporal elements that require continued specificity for its role in sexual offending against children to be fully understood. It is clear that child molesters as a group display quite specific empathy deficits around their own victims. What is not clear is whether this was present before the offending (and hence contributed it) or is a result of it, a reflection of post-offence cognitive distortions, acquired as a means minimising the effects of dissonance or distress the offender might experience as a result of what he has done.

Self Esteem

Sex offenders have been generally regarded as having low self-esteem. Wolf (1984) proposed that child molesters engage in fantasies of emotional and sexual gratification with children to compensate for feelings of low self esteem, which in turn contributes to them seeking sexual contact with children. Some support for this was obtained by Pithers, Buell, Kashima, Cumming, & Beal (1987) who found that 61% of child molesters in their study reported low self-esteem as a precursor to offending. Segal & Marshall (1986) had subjects indicate their confidence in dealing effectively with an imminent conversation with an adult female. Child molesters rated themselves most poorly, whereas rapists did not differ from non-sexual offenders and socioeconomically similar non-offenders. Other studies have found child molesters to have lower self esteem than sexual offenders against adults (Kalichman, 1991), college students (Marshall, Barbaree, & Fernandez, 1995) and matched non-offenders. Marshall, Barbaree, & Fernandez (1995) did not find differences between child molesters and a community sample.

At a broader level Baumeister, Smart, and Bowden (1996) argued that aggression is more typically associated with unstable high self-esteem than persistent low self-esteem. They found that for violent offenders low self-esteem was not a risk factor for engaging in violent actions. Hudson & Ward (1997) found sex offenders to exhibit a range of self-esteem disturbances, possibly associated with different offence styles.

Other than the Pithers *et al* study, these studies did not make it clear whether the low level of self-esteem assessed among child molesters was present at the time of their offending or was the result of their process through arrest, conviction, and sentencing. Regardless, self-esteem appears to be correlated with progress in treatment. Enhancement of self-esteem in child molesters has been found to facilitate the attainment of treatment goals (Marshall, Champagne, Sturgeon, & Bryce, 1997). Furthermore Marshall (1997b) found reductions in sexual deviancy following treatment focusing on self-esteem. These findings are consistent with Bandura's (1977) notion of self-efficacy in which behaviour change is facilitated by the degree to which the person is confident they can make the change.

Loneliness, social isolation, and intimacy

By the end of the 1980s researchers had turned their attention from general deficits in social skills and cognitions to specific deficits related to intimacy and close relationships. Marshall (1989) suggested that poor quality attachments in childhood are associated with failure to develop the esteem, self-assurance, trust and interpersonal skills to establish and maintain intimate relationships in adulthood. Absence of intimacy is said to produce emotional loneliness, in turn leading to an aggressive disposition and a tendency to pursue sex with diverse partners in a search for intimacy through sexuality and less threatening partners.

IN a relevant earlier study Check, Perlman, & Malamuth (1985) found that lonely males expressed more hostility to females. They used Russell, Peplau, & Cutrona's (1980) *University of California Los Angeles (UCLA) Emotional Loneliness Scale*, Burt's *Acceptance of Interpersonal Violence Scale* and Burt's *Adversarial Sex Beliefs Scale*. Aggression was measured by willingness to administer aversive noise to a confederate on a bogus ESP experiment. Saunders, McClure, & Murphy (1986) reported serious marital problems in incestuous fathers, and Williams & Finkelhor (1990) found that all eight studies of incest offenders they reviewed found their samples to experience social isolation to some degree.

Child molesters have been seen to be more deficient in intimacy and lonelier than rapists (Garlick, 1991), and non-sex offenders (Fisher, Beech, & Browne, 1999; Garlick, 1991). In an unusual study of a non-forensic, non-clinical sample of professed pedophiles Wilson & Cox (1983) administered the Eysenck Personality Questionnaire and found that these men reported higher levels of shyness and sensitivity in social situations, and greater degrees of loneliness and isolation than did controls. As a whole however the sample did not markedly lack social skills and confidence.

Seidman, Marshall, Hudson, & Robertson (1994) used four groups and a range of measures to assess whether intimacy discriminated between sex offenders and controls. They found that incest offenders scored higher on intimacy than other sex offender groups but that all sex offender groups differed from controls. There were no differences between sex offender groups on loneliness measures but again all sex offender groups differed from the controls. A second study used groups of imprisoned child molesters, rapists, and two non-sex offenders groups (one violent and one non-violent). It found sex offenders to be lonelier and to have more intimacy problems than other two groups. Violent non-sex offenders exhibited more

anger but notably this did not adversely affect loneliness for this group. Overall sex offenders were found to be deficient in managing intimacy, which in turn made them angry. Loneliness was not found to be causally linked to aggression. Intimacy was a better predictor.

Ward, McCormack, & Hudson (1997) used an interview methodology to gain sex offenders' perceptions of, and involvement in, intimate relationships. They arranged offenders' responses into categories such as commitment, expression of affection, support received and support given, trust, mutual empathy, sexual satisfaction, and sensitivity to rejection. No significant differences emerged between the sex offenders and non-sexual offenders in terms of the intimacy-related variables. This suggests that these areas may be more predisposing to criminal behaviour in general rather than distinct to sex offenders. Sex offenders were noted to have a number of deficits that may impact on intimacy including low self-disclosure, hesitancy to express affection, decreased empathic responsiveness, and poor conflict resolution skills. Child molesters were found to be more sensitive to rejection and reported less sexual satisfaction in their romantic relationships than the other groups.

Attachment theories (Ainsworth, 1989; Bowlby, 1969, 1973) argue that an individual's attachment style (how they develop intimate relationships with others) can be determined by positive and negative internal working models of the self and others. For instance a child who perceives himself as worthy of love and support (positive internal model of self), and views others as trustworthy (positive internal model of others), will be securely attached. Someone who has negative models of themselves, others, or both, will become avoidantly attached, exhibiting a state of emotional detachment, isolation, and lack of intimacy.

Bartholomew & Horowitz (1991) recognised associations between attachments in children and attachments in adults, and proposed a four-style model of attachment, derived from the combinations of the internal models of self and others. The four styles are *secure* (comfortable with intimacy, maintain high self-esteem, and tend to have few interpersonal difficulties), *pre-occupied* (tend to rely on others for approval), *dismissive-avoidant* (denying the importance of close relationships and preferring to remain autonomous and protected from hurt or rejection so they may be more likely to be interpersonally hostile), and *fearful-avoidant*, (perceiving themselves as untrustworthy and unlovable and expect others to be rejecting, untrustworthy, unreliable and unavailable).

Recent attempts have been made to incorporate the findings regarding intimacy into the framework of attachment theories. Ward, Hudson, Marshall, & Siegert (1995) expanded and reformulated Marshall's (1989) model of the relationship between attachment, intimacy, and offending (introduced above) to incorporate Bartholomew & Horowitz's (1991) three insecure attachment types. They hypothesized that sex offenders with pre-occupied attachment styles attempt to fulfil intimacy needs through sexual experiences that ultimately leave the offender unfulfilled and lonely. In directing attention towards a child, this type of offender engages in grooming behaviour and perceives the relationship as a mutually enjoyable dating encounter. They are therefore unlikely to act aggressively, forcefully or coercively. Fear-avoidant individuals desire but fear intimacy and therefore avoid venturing beyond the superficial. They engage in impersonal sexual encounters to fulfil intimacy needs. They lack concern for their partner, who is viewed simply as an object for sexual experience. Fear-avoidant offenders are therefore hypothesized to be self-focused and unemphatic towards victims and unconcerned or indifferent about whether force or coercion must be used to meet their sexual needs. As offenders, dismissive-avoidant types are more likely to act out aggressively particularly towards the gender of their preferred adult partner who are often blamed for the offender's interpersonal difficulties. Their offending behaviour may involve forcible rape.

Ward, Hudson, & Marshall (1996) provided some support for the typology with a high prevalence of the three insecure attachment types in their sample of sex offenders. As predicted rapists were more likely to have dismissive-avoidant attachment styles and child molesters more likely to have pre-occupied or fearful-avoidant attachment styles. Hudson & Ward (1997) reported that preoccupied and fearful-avoidant individuals reported more loneliness than those with secure or dismissive attachment types. Also consistent with the model they found that fearfully attached and dismissively attached individuals reported greater fears of intimacy. More important, the study found no significant differences between child molesters, rapists, violent non-sexual offenders, and non-violent nonsexual offenders on measures of loneliness, intimacy, hostility towards women or rape myth acceptance, a finding that the authors argue supports the use attachment style to categorise offenders.

This stream of work is valuable as an attempt to integrate a number of measures or constructs (e.g. loneliness, intimacy, empathy, and offending behaviour) into a more comprehensive understanding of sexual offending. It has implications for earlier findings regarding empathy for instance. Sex offenders do not lack the capacity for empathy *per se*. In the light of

Hudson & Ward's work, Bumby (2000) suggests that empathic processing and responding may be more a function of conscious or unconscious interpersonal strategies and choices based in internal schema and attachment style. Insecure attachments and the various combinations of negative views of self and others are likely to lead to interpersonal strategies that decrease the likelihood of establishing sufficiently intimate relationships. The resulting affect (e.g. anger, depression, fear, anxiety) is temporarily mitigated by the immediate positive affect resulting from sexual contact. These superficial and impersonal sexual experiences, which are designed purely to meet intimacy needs, reinforce the problem of immediate gratification and self-focus. In doing so the offender's focus is diverted from the victim.

1.2.5 Summary of Research Findings On Sexual Offenders Against Children

A key question to consider in seeking to understand the nature of sexual offending is the extent to which those who commit sexual offences against children can be differentiated from those who do not. Child molesters differ from non-offenders and other offenders on a range of measures. As a group they are often treated as specialists in terms of their offending but the evidence suggests this is not so for all child molesters, many having convictions for non-sexual offences. Child molesters are more likely to report sexual victimisation in their own childhood. It is probable that the effects of this are also influenced by the incidence of other forms of childhood abuse, including physical abuse. Offenders against boys are more likely to report abuse. Sexual arousal to children has been found to one of the strong predictors of future offending but it is evident that only a proportion of the child molester population exhibit this attraction. It is well established that extra-familial offenders as a group are more likely to display sexual arousal to children whereas incest offenders appear to differ little as a group from non-offender males. There is weak evidence that child molesters lack general social skills but stronger evidence that they lack certain skills that facilitate social competence including assertiveness skills, and to differ from non-offenders in their perceptions of social situations, events and cues. They under-estimate their own capabilities and self-efficacy, construe differences between adults and children that make them vulnerable to interpreting cues from children in sexual ways, report distorted beliefs and attitudes regarding sexual contact between children and adults, and have an empathic lacuna for their own victims. They are more likely to be lonely than non-offenders and to lack skills in developing and maintaining intimate relationships.

It would be tempting to conclude then that overall the impression of the typical offender has been more confirmed than disconfirmed but the above review has attempted to illustrate that there is substantial within-population variability on every measure applied to the population. Furthermore some of the characteristics for which child molesters are renowned, such as lack of empathy and presence of cognitive distortions, are not as straightforward as they seem, varying between subtypes of offenders. Further still, while there are differences on the psychosocial and psychosexual variables that rapists and child molesters have been compared there is considerable overlap between the two groups. It seems that child molesters, as a population, can vary from being indistinguishable from non-offender control groups to showing the greatest level of statistical deviation from the norm depending on the measure.

The empirical literature then has failed to identify a consistent psychological profile or set of characteristics that discriminates between child molesters and non-offenders and the overlap between offenders and non-offenders remains large. It does not appear possible to use any single measure to validly identify child sex offenders in a general population. Even deviant sexual arousal, considered the *sine qua non* of sex offenders, appears present amongst non-offenders, and is not measurable in all offenders.

Failure to develop methods and measures to validly identify sex offenders against children amidst non-offenders has contributed to the exploration of subtypes within the offender population and to refine predictions about offenders who are already known to be at risk because of a demonstrated record of sexual deviance. Researchers such as Knight & Prentky (e.g. Knight, 1988; Knight, 1989; Knight, Carter, & Prentky, 1989; Knight, & Prentky, 1990; Knight, Prentky, & Cerce, 1994) have proposed that within-group heterogeneity amongst sexual offenders against adults and against children suggests more homogeneous within-group subtypes that can be developed on the basis of variables independent of victim age. These will be reviewed later in this section.

The aim of the review so far has been to illustrate three things: i) it is not straight forward to identify a sex offender against children from a non-offender, ii) sexual offenders against children have some similarities and differences with non-sexual offenders and sexual offenders against adults, iii) developing a meaningful “typical” sexual offender against children is not straight forward because they are so diverse. Attention now turns to efforts to develop theories that account for sexual offending against children.

The approach used by Hudson and Ward is illustrative of work undertaken during the 1990s in which approaches to understanding sexual offending are built that integrate the various factors, many of them mentioned above, that the theorists consider necessary to account for sexual offending. The following is a brief summary of the major attempts to develop overarching models of sexual offending.

1.2.6 Multiple Factor Approaches

Much of the work reviewed so far has considered the role of single factors or small groups of factors in the instigation and continuation of sexual offending against children. Single factor explanations of sexual offending are unlikely to capture the heterogeneity of the child molester population or give adequate guidance to the comprehensive treatment of these individuals (Hall & Hirschman, 1991). Ward & Hudson (1998a) bemoaned the absence of a framework to guide empirical and theoretical research that has occurred with sex offenders. They distinguish between three types of theories that have sought to explain sexual offending.

They describe single factor accounts, regarding for example deviant arousal, (e.g. Barbaree, 1990); intimacy, (e.g., Marshall, 1989); cognitive distortions, (e.g. Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984); empathy, (e.g. Marshall, Jones, Ward, Hudson, & McDonald, 1993) as “middle level” theories. The major limitation of these approaches, illustrated above, is the narrow focus necessitating integration into broader multifactorial theories. “Comprehensive” or “multifactorial” theories take a set of loosely associated constructs with which to approach empirical problems, with the aim of developing a highly integrated theory. Thirdly, “micro-model” approaches build descriptive models of an offence chain or relapse process (e.g. Pithers, 1990; Ward, Louden, Hudson, & Marshall, 1995). Ward & Hudson (1998a) argued that theory development must occur at each of these levels with the micro-level approach providing touchstones for the more comprehensive approaches. One means of validating the more comprehensive approaches is on the basis of how well they account for micro-level findings.

Ward & Hudson (1998a) also considered the extent to which theories address or accommodate “distal” and “proximal” factors. Distal factors are pre-dispositional or vulnerability factors that emerge from both genetic inheritances and developmental experiences. They make a person vulnerable to committing a sexual offence once triggering or precipitating and

situational factors are present. Proximal factors are triggering processes or events, and emerge from the functioning of vulnerability factors. They are usually state variables, themselves the result of underlying psychological mechanisms, or contextual factors that trigger underlying vulnerabilities. They function to disinhibit self-regulation and erode the capacity to control strong internal states such as deviant sexual arousal, strong affect, or negative cognitions.

Ward & Hudson identify three multi-factorial theories:

- Finkelhor's Four Pre-conditions Model
- Marshall & Barbaree's Integrated Theory
- Hall & Hirschman's Quadripartite Model

Each of these has been highly influential in terms of research, assessment and treatment methodologies. These important theories will now be reviewed:

Finkelhor's Four-Factor Model

Finkelhor (1984, 1986) offered a four-factor psychological/ sociological model for exploring child molestation. The model is an interpretation of existing empirical research findings (relying largely on the reviews of Hollin, 1981, and Langevin, 1983) rather than theory.

According to the model four pre-conditions are required for a sexual offence to occur:

- A motivated offender
- An ability to overcome internal inhibitions towards sexual abuse
- An ability to overcome external or environmental barriers towards abuse
- A victim unable to resist the abuse

Motivation to commit an offence has three components: i) sexual contact with children satisfies an emotional need in offenders such that they find children to be emotionally gratifying and congruent, ii) children are a source of sexual arousal and gratification and iii) "normatively approved" sources of sexual gratification are blocked or inhibited in some way. These are viewed as complementary processes, many or all of which come into play in the commission of a sexual offence against a child rather than competing explanations for sexual offending against children (Araji & Finkelhor, 1986).

Finkelhor uses the term emotional congruence, the "fit" between an adult's emotional needs and the characteristics of children, to describe his first motivational factor. Congruence has been suggested to be caused by arrested psychosexual development (e.g. Groth & Birnbaum,

1978), low self-esteem (e.g. Wolf 1984), the result of the offender's own childhood sexual victimisation (e.g. Groth, Hobson, & Gary, 1982), social emphasis on males being dominant and the initiators in sexual relationships (Howells, 1981). Sexual arousal, Finkelhor's second motivational factor, has been reviewed above.

Finkelhor's third motivational factor is "blockage" which refers to characteristics and issues that thwart those who sexually offend against children from having emotional and sexual needs met by age mates. This literature has been reviewed above and covers such things as a lack of general heterosocial skills (e.g. Barlow, Abel, Blanchard, Bristow & Young, 1977; Panton, 1978; Howells, 1981; Marshall, 1985a; Wilson & Cox, 1983), disturbances in adult sexual or romantic relationships (e.g. Gebhard, Gagnon, Pomeroy, & Christenson, 1965), and intimacy (Seidman, Marshall, Hudson, & Robertson, 1994). There is only limited support for a further blockage theory is that child molesters have repressive norms or attitudes about aspects of sexuality including masturbation and extra-marital affairs. Gebhard, Gagnon, Pomeroy, & Christenson (1965) for instance found strong moral inhibitions for premarital intercourse among female object child molesters but not among other groups.

Once the motivational precondition to offend has been satisfied, Finkelhor argued that a prospective offender must overcome internal inhibitions against acting on these motivations. He draws on a set of studies that examine why conventional inhibitions against having sex with children are overcome or are not present in some adults. The evidence for cognitive distortions among child molesters (e.g. Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984; Abel, Gore, Holland, Camp, Becker, & Rathner, 1989; Stermac & Segal, 1987) has been reviewed above.

Finkelhor considered the association between alcohol and disinhibition to have the greatest empirical support. Alcohol can act as a direct physiological disinhibitor or it may have a social meaning that allows a person to disregard taboos against sexual contact with children while under its influence. Alcohol use appears to be consistently associated with the commission of sexual offences. Aarens, Cameron, Roizen, Room, Schneberg, & Wingard, (1978) reviewed the literature and found alcohol involved in 30-40% of cases in most studies. They found that studies showed that 45-50% of child molesters reported histories of drinking problems (range 8% to 70%). They concluded that incest offenders appear to be the most alcohol involved of all sex offenders. Morgan's (1982) literature review reached similar conclusions.

Finkelhor also considered theories that view child molesters as having poor impulse control but concluded that probably only a small group of child molesters are impulsive. There is little evidence that impulsivity is characteristic of the offender group in general. Gebhard *et al* (1965) found that only 10% of their female-object child molesters could be considered “unable to defer gratification and tolerate frustration until a socially suitable situation is available” and that 80% of the offences were planned, not impulsive. Regarding disinhibition by organic mental disorders, Finkelhor considered that there might be a small group of child molesters who suffer from progressive dementias but that, on the basis of evidence, they are not common. Further, there is little evidence to suggest that child molesters are intellectually impaired with most studies finding them to be functioning in the average range (e.g. Langevin, 1983).

Finkelhor’s third pre-condition is to overcome external inhibiting factors. These are often situational factors such as the absence or incapacity of another adult to protect the intended victim, opportunities to offend such as sleeping conditions (Lanyon, 1991). The forth pre-condition requires the offender to overcome resistance from the child victim. This may be achieved by selecting victims whose ability to resist is compromised (e.g. by their age, previous experiences of abuse, utilising high levels of trust between the offender and victim), coercive or forceful compliance, or progressive “grooming” of the victim.

Lastly, Finkelhor (1984) suggests the importance of two further basic dimensions for classifying child molesters: the *strength* of the person’s motivation to have sex with children, and the *exclusivity* of their preference for sexual contact with children.

Finkelhor’s model has largely avoided critical scrutiny, with most commentators content to reference it (Marshall, 1996), describe it (e.g. Becker & Kaplan, 1990), consider its relevance to the area they are reviewing (e.g. Fisher & Howells, 1993; Ward & Hudson, 1998a) or consider how factors researched subsequent to the development of the theory can be accommodated by it (Lanyon, 1991). Its strength lies in its incorporation of the major findings of the existing literature and empirical data. It is highly influential and has broad face validity amongst professionals working with child molesters such that it has been incorporated into a large number of treatment approaches. It is imprecise however, and the factors used are so broadly defined that it is not difficult to accommodate the myriad means by which

individuals offend sexually against children. Further its focus is primarily on the conditions required for offending to occur rather than an aetiological theory *per se*.

Ward & Hudson (2001) critically reviewed the model. They noted that the inclusion of a mixture of psychological theories provides the model with flexibility and inclusiveness but also introduces inconsistency, incoherency, and incompatibility. They argue that the model is more a theoretical framework than a substantive theory. In fact they question whether it is genuinely multifactorial as a theory in that *any one* of emotional congruence, blockage, or sexual arousal can motivate an individual to sexually abuse a child. They note a lack of detail concerning the way the various psychological vulnerability factors are connected to the various motives proposed in the model. They consider that the model lacks attention to developmental factors and tends to focus on proximal causes of offending.

Ward & Hudson (2001) provide specific criticisms of each of the four preconditions. The psychological vulnerabilities outlined in precondition one are all motives of various kinds with no overt attention paid to the role of cognitive factors although it appears that Finkelhor assumes that cognitive factors do causally interact with drives, needs and emotions. The constructs of developmental blockage and emotional congruence overlap such that their separate contributions to the theory are difficult to see. Both refer to developmental conflicts and vulnerabilities and so may be different representations of the same phenomenon. In terms of the second precondition, they consider the way the model accounts for the overcoming of internal inhibitions when the first precondition requires a motivation to commit a sexual offence to be a logical inconsistency, and suggest that what this actually reflects is a conflict of motives. They argue that some offenders (approach-explicit in their own model) do not need to actively overcome internal inhibitions. They further argue that combining both state and trait factors on one category is confusing, and including complex constructs such as values and beliefs as disinhibitors ignores the various ways in these are related to the control of behaviour (loss of control, use of ineffective strategies, or effective self-regulation towards inappropriately chosen goals).

Hudson & Ward (2001) argue that different offenders use distinct strategies to create sexual access to a child and to overcome his or her resistance but these are not spelt out by the model or linked to distinct motives or combination of motives. They conclude convincingly that the

confusion of levels offered by the model leads to so many possible causal sequences that the model is of limited value in terms of developing a taxonomy of child molesters.

Marshall & Barbaree's Integrated Theory

Marshall & Barbaree (1990) proposed a theory of the development of sexual offending more general than Finkelhor's. At the heart of this theory is the view that the task for human males is to acquire inhibitory control over a biologically endowed propensity for self-interest associated with a tendency to fuse sex and aggression. The theory suggests that sexual offending is multiply-determined on the basis of:

- Biological propensities for both aggression and sex,
- Varying abilities to inhibit these propensities due to both hormonal functioning and poor social learning,
- Aggression and sex becoming associated with each other rather than separated,
- Socio-cultural attitudes, particularly patriarchal attitudes towards women and children, influencing individual attitudes,
- The disinhibitory effects of intoxication or emotional states such as anger or stress,
- The level of sexual arousal the offender experiences towards the victim.

Marshall & Barbaree (1990) start with the biological fact that all mammalian species inherit a propensity to engage in sexual behaviour and present evidence that a propensity to aggression is also inherited. They cite species-specific aggression in all members of a species, whether or not they have been exposed to environmental conditions that could be said to train them in such behaviour, as evidence of this. They note that evolutionary history has provided human males with a repertoire of means of obtaining sexual goals, including aggression, threats, and coercion. Most men do not engage in these options. So, according to Marshall & Barbaree, the display of these behaviours in an individual is far from inevitable. Nor is the propensity an excuse for the commission of the behaviours. Rather, biological endowment is simply the stage for learning, providing limits and possibilities rather than determining outcomes.

Marshall & Barbaree (1990) note that aggression and sex are mediated by the same neural substrates, predominantly involving midbrain structures (hypothalamus, septum, amygdala, hippocampus, and pre-optic area). Sex steroids, which show their effects following puberty when hormone levels increase massively, have an activating function in both sex and aggressive behaviour. Adolescence therefore is a crucial time for learning to express and

channel aggression, and for the development of enduring sexual propensities. According to the theory, these biological factors present the growing male with the task of learning to separate sex and aggression, and to inhibit aggression in a sexual context. In pursuit of their sexual interest males must learn to inhibit behaviours that are frightening or humiliating to their partner and adjust the age of their preferred sexual partner as they themselves age.

Marshall & Barbaree (1990) proposed that attitudes and behaviours acquired during childhood influence how individuals respond to the onset of strong desires during and following puberty. They argued that poor socialisation, particularly a violent parenting style, models the use of aggression, deprives the youth of more socially appropriate interactions and contributes to enduring feelings of hostility and resentment. Marshall & Barbaree (1990) cited research on various forms of sexual offending to support these contentions. From backgrounds of poor socialisation youths are more inclined to become insensitive, unempathic adults, and concerned primarily with their own interest and needs. They miss opportunities to experience strong emotional attachments, and the ensuing sense of self-confidence, that recipients of appropriate parenting get and which form the ingredients for developing intimate relationships in adulthood. The pubertal release of hormones serves to fuse sex and aggression, enhancing already acquired aggressive proclivities, and inhibiting the development of sufficiently strong constraints on the expression of sex and aggression.

The absence or limitation of a capacity for intimacy alienates the individual, leading to emotional loneliness, itself associated with hostility and aggression. Failure to effectively interact with others during adolescence leads to anxiety about such interactions, feelings of masculine inadequacy, and possibly anger towards those who are seen as the source of the problem. Self-esteem, at least amongst adolescent males, is largely determined by their sense of their sexual ability. Individuals who lack the skills, or desire, to form intimate emotional attachments with peers may turn to aggressive sex or sex with children as means of proving their masculinity to themselves, either imaginally during masturbatory fantasies or through actual behaviour. Development of a preference for aggressive sex or sexual contact with children may be further reinforced by exposure to pornography depicting these activities. The motivations for offending may not be limited to sexual gratification but reflect the myriad of contributing factors that fed the behaviour.

Marshall & Barbaree (1990) acknowledge the role of socio-cultural attitudes expressed by society at large in interacting with poor parenting to reinforce and maintain the attitudes of the individuals described above and enhance the likelihood of sexual offending. They consider patriarchal views (e.g. acceptance of interpersonal violence as a means of dealing with problems, social acceptance of male dominance, and prevailing negative attitudes towards women), as particularly relevant, with prospective offenders adopting these views in order to bolster their own sense of masculinity.

Lastly Marshall & Barbaree (1990) consider that certain environmental factors interact with particular states in the individual to disinhibit control and facilitate sexual aggression and abuse. Those with a history similar to that outlined above are, Marshall & Barbaree (1990) argue, likely to be more vulnerable to these factors. Key disinhibitory factors include alcohol intoxication, and strong emotional states such as anger or stress. Sexual arousal in itself is also likely to have a disinhibitory effect. The individual's rating of their likelihood of avoiding consequences for their behaviour also appears to influence its occurrence.

Ward (2002) critiqued the model. The theory's general scope, aimed at explaining all types of sexual offending, limits the extent to which it can adequately address specific issues associated with particular sexual offences and delineate between subgroups of offenders. The theory emphasises the role of failure to inhibit deviant desires and impulses but Ward cites research indicating that only a small number of offenders appear to have problems with self-regulation. Ward notes that the model ignores the issue of offender typology and suggests the theory could be broadened to accommodate the different "pathways" offenders take to committing offences. Ward and Hudson's model, using this later approach is considered later.

Ward suggests that there are in fact implicit pathways embedded in Marshall & Barbaree's model. Some offenders, for instance, acquire negative attitudes towards women from being exposed to inappropriate models during their childhood. Other offenders become distrustful and suspicious of females due to poor heterosocial skills leading to unsuccessful attempts to establish relationships in early adolescence. A third group use masturbation as a strategy to regulate low mood and fail to develop more adaptive problem solving skills while a fourth group engage in deviant sexual fantasies to enhance self esteem and express frustration. The model does not explicitly identify and differentiate these pathways. Nor does it account for why individuals associated with the various pathways go on to commit sexual offences rather

than other types of offences. The model's emphasis on aggression is appropriate for rapists but overt physical violence is not a common feature of child molestation.

A further area of criticism is the model's reliance on the fusion of sex and aggression and its claim, in support of this, that sex and aggression are mediated by the same neural substrates. Ward points out that these structures subsume a wide range of drives and responses. Also, proximity of neural structures does not necessarily mean similarity of function. Regardless of neural location, sex and aggression are psychologically very different, leaving the notion of "fusion" between them ambiguous. Related to this, the model's emphasis on discriminating and regulating sex and aggression does not actually clarify the nature of this task which, according to Ward, could be a discrimination task or learning how to manage emotional arousal. Finally the complex relationship between self-esteem and offending, (discussed above) challenges the central position that the integrated theory places low self-esteem in.

Hall & Hirschman's Quadrupartite Theory

Hall & Hirschman (1991) developed a theory of rape that they subsequently expanded to explain the onset of sexual offending against children (Hall & Hirschman, 1992). Their model has four components: sexual arousal, cognitions justifying sexual aggression, affective dyscontrol, and personality problems, which are seen as motivational precursors that increase the probability of sexual offending and define subtypes based on the relative prominence of each of the factors in an individual.

Hall & Hirschman (1992) include physiological arousal to children as a primary motivator, on the basis of the studies by Abel, and Freund (reviewed above), but in keeping with their criticism of single factor explanations, they add that this alone is insufficient to account for sexual offending against children. The second factor, cognitions, is seen as the means by which physiological arousal is "appraised" (justified) before it is acted upon. Inclusion of this is supported by research noting the presence of cognitive distortions within the child molester population (e.g. Howells, 1978; Stermac & Segal, 1989) but Hall & Hirschman also consider the extent to which sexual offending against children might be a function of the appraised threats and benefits for the individual.

For Hall & Hirschman (1992) affective dyscontrol is required in order to commit a sexual offence against a child. It is possible that strong negative emotions (e.g., depression) lead

child molesters to utilise sex with children as a coping mechanism. They may also make it difficult to inhibit or control deviant sexual tendencies. Hall & Hirschman (1992) propose a reciprocal relationship between these negative affective states and inhibitors of sexual behaviour with children, such as victim empathy, guilt, moral conviction, and anxiety regarding conviction.

The three factors presented so far are primarily state and situation dependent. Hall & Hirschman (1992) propose that in some cases enduring trait variables interact with these to provide the context for sexual offending and modulate the likelihood of its occurrence. They acknowledge research indicating that early experiences may create lasting personality problems that increase the likelihood of later sexual offending against children (e.g. Bard, Carter, Cerce, Knight, Rosenberg, & Schneider, 1987) and account for the chronicity and severity of sexual behaviour with children that is not accounted for by the state and situational variables. Finally Hall & Hirschman (1992) acknowledge that additional environmental factors may influence the occurrence of a sexual offence against a child (e.g., the availability of a vulnerable victim, as in Finkelhor's model, and the influence of pornography on arousal as in Marshall & Barbaree's model).

According to Hall & Hirschman (1992) one of these factors is likely to have primacy as a motivator for sexual offending against children, exerting a greater influence over the other factors and "pushing" individuals over the offence threshold. The introduction of this primary motivational precursor activates the complex of causal factors and is therefore responsible for increasing the probability of a sexual offence occurring.

Differing from the previous two theories, which do not attempt to accommodate the individual differences that sex offenders against children display, Hall & Hirschman (1992) propose different subtypes of offenders based on which factor is the primary motivator. The first type is primarily motivated by deviant sexual arousal representing the "classic" preferential offender who tends to commit offences against large numbers of children (Howells, 1981; see below for a discussion on the fixated/regressed preferential/situational typology). The second type is characterised by a cognitive primary motivational precursor for sexual offending. Cognitive activity supersedes general and sexual impulsivity as motivators of the sexual offending. Offenders of this type misinterpret children's behaviour as revealing sexual intent and also possess good self-regulatory and planning skills (e.g., incest offenders). The third

type is defined by their susceptibility to negative affective states, and frequently behaves in an impulsive and unplanned manner (e.g. situational offenders, Howells, 1981). The final type has developmentally related personality problems. They experience difficulties establishing intimate adult relationships and effective functioning in the world.

Ward (2001) has highlighted a number of limitations with this theory. First, it is not clear whether all the factors are *necessary* causes of offending or optional depending on the subtype of the offender. Hall & Hirschman (1992) claim, for instance, that an offender characterised by cognitive distortions may not exhibit any of the other factors. Taken literally this is at odds with almost every other account of sexual offending against children that consider deviant sexual arousal to be an essential motivator for sexual behaviour against children (although it may vary between individuals in terms of strength and duration). Ward's point is that if any one of the factors is sufficient to account for sexual offending the model ceases to be a multi-factor model and reverts to a set of single factor explanations of offending, the limitations of which have already been pointed out.

Ward (2001) considers that the theory does not make it clear whether it is seeking to explain child molestation *per se* or the features frequently associated with child sexual abuse. Thirdly, he considers the theory to suffer from construct ambiguity, with insufficient "unpacking" of the core constructs. As the review above has shown, cognitive distortions, for instance, can come in many forms that are not recognised by the model. The model does not specify the mechanisms capable of generating the factors or how they might be related. According to Ward (2001) the distinction made between state and trait factors does not hold, and some of the four factors may overlap to some extent.

1.2.7 Taxonomies & Typologies

The Heterogeneity of the Sex Offender Population

By now it should be evident that the sex offender population is a diverse group in terms of personal characteristics, life experiences, and criminal histories, a conclusion reached frequently in the literature (e.g., Bard, Carter, Cerce, Knight, Rosenberg, & Schneider, 1987; Finkelhor, 1984; Grubin, 1998; Hollin & Howells, 1991; Knight, Rosenberg, & Schneider, 1985; Marshall, 1997a; Prentky, 1999). Reviewers continue to note that the child molester population is treated as if they constituted a relatively homogeneous group, and that taking

this approach masks differences amongst sex offenders that may be critical for understanding aetiology, treatment, and future risk of offending.

Howells (1981) argued that this heterogeneity precluded “any one monolithic theory” to account for all sexual offending against children and Knight & Prentky (1990) emphasise the vital role of classification in science. For them, and others, understanding the taxonomic structure of a population is the keystone to theory building and the cornerstone of intervention. Marshall (1997) reinforced this by suggesting that the reduction of heterogeneity to manageable proportions should be a priority for future research. Attempts have been made to increase group homogeneity within the child molester population through the production of typologies or subtypes. Blackburn (1993b) developed a useful framework into which the approaches used to classify child molesters can be placed. This is summarised in Table 1.2.

Table 1.2 Classification methods for child molesters* #

Classification method	Example
Clinical Descriptions	
Psychiatric diagnosis	DSM IV pedophilia
Sexual Preference	Fixated/ Regressed; Preferential/ Situational
Demographic clusters	
Univariate	Victim gender
	Relationship to victim
Multivariate	Risk of re-offending
Theory driven	
Degree of fixation/ type of contact	MTC: CM3
Offence pathway description	Self-regulation model
Psychometric profiles	MMPI
	MCMI

* adapted from Bickly & Beech (2001, p53)

Rosenberg & Knight (1988) previously suggested three approaches: i) medico-legal, in which offenders are classified either on the basis of a psychiatric diagnosis or on the nature of the offence (e.g. Gebhard, et al, 1965). They may be based on personality types derived from psychometric tests (e.g. Armentrout & Hauer, 1978; Panton, 1978). Often this a simple bifurcation of the population often based on the presence of absence of one or several factors (e.g. Groth & Birnbaum, 1978); ii) rational approach which focuses on the psychological meaning of the offences to the individual committing them using a combination of clinical experience and psychological theories of personality development (e.g. Prentky, Cohen, & Seghorn, 1985); iii) The use of cluster analysis to generate cohesive and clinically meaningful groups (e.g. Armentrout & Hauer, 1978). The overlaps with Blackburn’s framework are obvious.

Bickley & Beech (2001) completed an excellent review of the major classification systems and critiqued them on the basis of six criteria:

- i) reliability of classification criteria
- ii) consistency and ease of use
- iii) pertinence to a large number of individuals
- iv) valid distinction between types
- v) relevance to treatment
- vi) theoretical relevance to explanation and prediction

The major classification systems will be reviewed and Bickley and Beech's comments included where they are available.

Diagnostic Categorisation

This approach views child molestation as a sexual disorder. Disorders of sexual preference are classified in the *International Classification of Disease* (ICD-10; World Health Organisation, 1992) under disorders of adult personality and behaviour. The DSM-IV (APA, 1994) divides sexual disorders into sexual dysfunctions and paraphilias (see Gayford, 1997, for a thorough review of the literature related to paraphilias with reference to DSM-IV). Paraphilias are characterised by repetitive or preferred sexual fantasies or acts involving non-human objects, non-consenting partners, or the suffering or humiliation of one's partner or oneself. . Pedophilia, defined as arousal to prepubescent children, is listed as a paraphilia. The definition incorporates criteria for subcategories based on the exclusivity of the preference, gender of victim, and whether the behaviour is limited to incest. These three aspects of offending each form the basis of other classification systems that will be reviewed next.

Bickley & Beech (2001) noted a number of limitations with this approach. First, the criterion that an individual experiences recurrent and intense sexual urges, fantasies, or behaviours involving children hinders the reliability of the diagnosis as many deny or minimise such deviancy (e.g. Marshall, 1997a; Salter, 1988). As previously mentioned Marshall (1997a) estimated that this definition probably only applies to 25-40% of individuals who commit sexual offences against children, either because they genuinely do not meet the criterion or it is undetectable due to denial or minimisation. An illustration of this limitation is the fact none of the sex offenders in Craissati & McClurg's (1996) study met the DSM III criteria for paraphilia. The criteria (e.g. "recurrent and intense") are open to subjective interpretation by

the diagnosing clinician. The arbitrary cut-off for pubescence at 13 and the exclusion of adolescent offenders further limits the applicability of the system.

Follette & Houts (1996) provided a broader critique of the atheoretical method used to develop the DSM taxonomy. For them the burgeoning classification system, concerned mainly with behavioural topography, and developed in the absence of good theory, does not serve scientific advancement and may contribute to the continued development of alternative classifications systems. Bickley & Beech (2001) considered the DSM-IV system to have limited relevance to understanding and treating the offence process for an individual. Endorsing Follette & Houts' (1996) concern they suggested that the inadequacies of the DSM system may have contributed to the proliferation of alternative classification systems as clinicians and researchers develop their own means of describing their population. Marshall (1997a) agreed, suggesting that many therapists working with child molesters ignore the DSM diagnosis and respond as though all persons who commit sexual offences against children had, by the nature of their behaviour, problems in need of treatment.

Fixated versus Regressed Offenders

Freud viewed the roots of perversions as lying in childhood sexuality. He saw sexually perverse impulses as characterising early development, with the child giving up these impulses in response to social conditioning and education. For Freud perversion in adulthood was a continuation of infantile sexual behaviour and inclinations into adult life either as a regression to perverse sexuality or a fixation at an infantile level. Freud's ideas have influenced more contemporary work (see Howells, 1981 for a more detailed account of the application of Freud's theories to adult sexual interest in children).

Following Freud, Karpman (1954) distinguished child molesters with a stable erotic preference for children from those for whom children are surrogates for adult sexual partners. Cohen, Seghorn, & Calmus (1969) outlined a clinically derived trichotomy of offenders, dividing them into *fixated*, *regressed* and *aggressive* groups. The fixated group preferentially seek the company of children. Regressed offenders have some adult heterosexual interest but feel inadequate and react sexually to children following a threat to their masculinity. The aggressive type engages in sadistic acts, usually with boys. Groth, in perhaps the most frequently cited classification of sex offenders, utilised the regressed-fixated distinction in his

theory on the development of child molestation. He listed characteristics said to differentiate the two types (see Table 1.3, from Groth, Hobson, & Gary, 1982).

Table 1.3 Characteristics of fixated and regressed child molesters

Fixated Type	Regressed Type
- Primary sexual orientation to children	- Primary sexual orientation to age mates
- Pedophilic interests begin in adolescence	- Pedophilic interests emerges in adulthood
- No precipitating stress/ no subjective distress	- Precipitating stress usually evident
- Persistent interest and compulsive behaviour	- Involvements may be episodic and may wax and wane with stress
- Premeditated, pre-planned offences	- Initial offence may be impulsive
- Identification: offender identifies closely with the victim and equalises his behaviour to the level of the child and /or may adopt a pseudo-parental role to the victim	- Substitution: offender replaces conflictual adult relationship with involvement with a child; victim is a pseudo adult substitute and in incest situations the offender abandons his parental role
- Male victims are primary targets	- Female victims are the primary target
- Little or no sexual contact initiated with age mates; offender usually single or in a marriage of convenience	- Sexual contact with child co-exists with sexual contact with age mates; offender married or common-law
- Usually no history of alcohol or drug abuse; offence is not drug-related	- Offence is often alcohol/ drug related
- Characterological immaturity; poor socio-sexual peer relationships	- More traditional lifestyle but under-developed peer relationships
- Offence: maladaptive resolution of life development (maturation) issues	- Offence: maladaptive attempt to cope with specific life stresses

Howells (1981) supported the distinction but adopted the more behaviourally oriented terms *preferential* and *situational* offenders. Preferential offenders have a primary sexual orientation to children and a disinterest in adult sexual partners for the fulfilment of emotional and sexual needs. They tend to be unmarried or in “marriages of convenience”. Their victims

are usually males. They do not view their behaviour as inappropriate. Their offences are pre-planned, ongoing and persistent. They have a compulsive quality to them, and are not precipitated by stress. Situational offenders generally have a normal history of social and sexual development, though with deficits in intimate relationship skills. Their primary sexual and emotional interests are towards adult partners, and they view their child-related urges as abnormal. Their offending is often impulsive and episodic, precipitated by life stresses.

Groth & Birnbaum (1978) report empirical support for the classification system. They could classify 175 convicted sex offenders against children as either preferential (83) or situational (92) with significant differences between the two groups on many of the factors mentioned above. Further support for the distinction comes from the finding that offenders who offend primarily against older children (15-16 years of age) tend to have sexual responses, in terms of age preference, similar to men who offend against adults (Baxter, *et al*, 1984).

There is not universal acceptance for this distinction, despite its prominence in the literature. No study has scientifically validated the construct of fixation on which the dichotomy rests by demonstrating an association between sexual contact with pre-pubertal children and a failure of normal developmental processes. The fixated/ preferential type is assumed to suffer from a number of social inadequacies that serve to block their ability to form age-appropriate relationships but Prentky (1999) found social and interpersonal competence to be independent of fixation. Bickley & Beech (2001) point out the Cohen *et al* (1969) study used small numbers of extra-familial incarcerated offenders, with no indication of inter-rater reliability in the classifying of subjects. Lanyon (1986) questioned whether Groth & Birnbaum's classification was done independently of the results and suggested that the preference-situation distinction might be better viewed as dimensional rather than dichotomous.

The dividing line between the two groups is not always clear and neither is the number of factors necessary or sufficient to classify an individual as one of the types (Bickley & Beech, 2001). Salter (1988) suggested that there were overlaps between fixated and regressed types possibly due to an over-reliance on offender self-report of their offending behaviour. Simon, Sales, Cassia, & Khan (1992) attempted to empirically validate the fixated-regressed typology using information gained from 136 consecutive cases of convicted child molesters in Arizona over a two year period. The authors developed operational measures of the variables suggested by Groth to characterise the two groups and rated each of the subjects on the

variables. Results yielded a unimodal and continuous distribution of child molesters rather than the bi-modal distribution predicted by the theory. Offenders who were younger, related to their victim, and with a prior non-sex record were statistically more likely to appear on the regressed end of the continuum. Knight's (1989) conclusion that empirical research has failed to support the existence of this typology still stands.

The Gender of Victims: Offenders against Boys versus Offenders Against Girls

Since the early work of Krafft-Ebbing (1886/1965) a distinction has been made between sex offenders who target female children, those who target male victims, and those who are indiscriminate regarding their victims' gender. The proportion of offenders who fall into each group is difficult to determine with estimates usually based on samples of convicted offenders. Elliott, Browne, & Kilcoyne (1995) found that nearly 30% of a U.K. sample of offenders reported targeting victims of either sex, but this is certain to be biased by the high proportion of special hospital patients in the sample (Grubin, 1998). Bradford, Bloomberg, & Hart (1988) estimated that 20-33% of child sexual abuse is with victim gender the same as that of the offender (the majority of offenders are male) and that about 10% of offenders offend against both genders.

Howells (1981) and Langevin (1983) both proposed that meaningful distinctions can be made between male molesters of male victims and of female victims. The distinction has concurrent and predictive validity on the basis of plethysmographic responses to stimuli depicting different ages and genders (Quinsey & Chaplin, 1988) and is stable over time (Langevin, Hucker, Handy, Purins, & Russon, 1985b). A range of studies demonstrates differences between offenders on the basis of victim gender. Offenders against boys stand out as a distinct group (Grubbin & Kennedy, 1991). Their victims are more likely to be strangers, they are more likely to have engaged in paraphilic behaviour other than that associated with their offence, and they are more likely to have previous convictions for sexual offences.

Offenders against boys or against both boys and girls are reported to have more victims (Maletsky, 1990) and to be of higher risk of re-offending than those who only offend against girls (Hanson, Steffy, & Gauthier, 1993; Quinsey *et al*, 1995). Several studies have failed to confirm the distinction in recidivism rates however. Abel, Becker, Cunningham-Rathner, Mittelman, & Rouleau (1988) found that those who offend against both sexes are most likely

to re-offend, while Prentky, Knight, & Lee (1997) found that gender of victim is not related to re-offence risk at all.

Bickley & Beech (2001) identified a number of methodological weaknesses, mainly concerning sampling biases, which might account for these discrepant findings. Most studies focus on the gender of victims in reported offending, ignoring the large number of unreported offences, and potentially biasing the results. In addition, there may be situational factors (e.g. substance abuse) that lead an offender to assault a child of the “less preferred” gender. Furthermore, some studies do not distinguish between incest and non-incest offenders, a factor that can affect the differences between male-victim and female-victim offenders in that incest offenders are more likely than extra-familial offenders to select female victims. Finally if samples differ in terms of their previous sexual offending then victim gender may be less important to accurate prediction of future risk than other factors such as degree of sexual preoccupation with children, and impulsivity.

Victim gender does not necessarily reflect adult sexual orientation. There is phallometric evidence that many offenders whose victims are boys claim to be heterosexually oriented (e.g. Freund & Langevin, 1976). Marshall, Barbaree, & Butt (1988) found that even in a group of men who had offended exclusively against boys aged 5-10, two thirds had heterosexual adult preferences. Reported differences may be influenced by the sample selection and the context of disclosure (Greenberg, Bradford & Curry, 1995). Related to this, homosexuality per se does not appear to be a risk factor for committing sexual offences against children. Jenny, Roesler, & Poyer (1994) examined all the records of a sample of children evaluated for sexual abuse over the course of one year and classified them on the basis of whether the abuser was homosexual or not. They found that 7% were abused by homosexuals and concluded that there is no greater rate of sexual offending against children amongst gay men or women.

Lanyon (1986) reported that the preference-situation distinction correlated positively with the victim gender distinction so it may be that some combination of these models better accounts for the range of victim gender/sexual orientation combinations possible.

Relationship to Victims: Intra-familial Offenders versus Extra-familial Offenders

A distinction is often made between child molesters who offend against close family relatives and those who offend against victims outside the family, known or unknown to them. Phelan (1986) compared biological fathers versus stepfathers who sexually abused their daughters and reported that biological fathers tend to abuse multiple daughters, were more likely to abuse pubertal and post-pubertal children, and to engage in full intercourse than stepfathers. Russell (1983), reporting on research with a non-clinical population, found that the incidence of incestuous sexual abuse was seven times higher in stepfathers as in biological fathers.

There is evidence that those who offend within the family and those who offend without have different offence histories and different risk rates for ongoing offending. Stermac, Hall, & Henskens (1989), using a sample of male psychiatric in-patients referred for assessment charged with sexual offences, compared 29 incest offenders with 37 non-incest offenders. 59% of the non-incest group had prior conviction for sexual offence compared to 34% of the incest group. The incest group had significantly fewer prior non-sexual and sexual offences than the non-incest group. Counter to the stereotypic view of incest offenders they evidenced a higher rate of violence prior to age 18, than the extra-familial offenders.

In a large multi-national 10 year follow-up study of 4673 sexual offenders of various types Hanson (2002) found that extra-familial offenders recidivated at a rate of 19.5%. There was little reduction in the rate for this group until after the age of 50. The recidivism rate for the intra-familial child molester was relatively low (8.4%) except for those in the 18-24 age group whose recidivism was comparable to that of rapists (17.1%) and the extra-familial offenders.

Abel (Abel, *et al*, 1987; Abel, *et al*, 1988) found differences in the extent of offending reported by extra-familial and intra-familial offenders referred for outpatient treatment. Extra-familial offenders reported an average of 19.8 victims (for those with female victims) and 150 victims (for those with male victims). Incest offenders reported on average two victims. 49% of the fathers and step-fathers admitted to abusing children outside their family at the same time that they were offending against their own children indicating that, at best, there is likely to be considerable overlap between membership of the two groups.

Pawlak, Boulet, & Bradford (1991) compared 965 incest offenders and 127 non-incestuous child molesters on the *Derogatis Sexual Functioning Inventory* (DSFI, Derogatis, 1976). The

total sample fell below the first percentile on the global sexual functioning index suggesting a poor level of sexual functioning compared to the general population. Incest offenders scored higher than extra-familial offenders on measures of experience and satisfaction and lower on a measure of fantasy. A discriminant analysis however failed to yield clinically relevant distinctions between the sexual problems of the two groups.

Overall most studies tend to find that men who sexually offend against children outside their families have greater sexual arousal to children than do groups of other offenders and community controls, while varying results have been reported for incest offenders (Marshall, 1997; Prentky, 1999; Quinsey, Chaplin, & Carrigan, 1979). Phallometric results with incest offenders have been more varied with some studies finding them indistinguishable from non-offending controls (e.g. Quinsey, Chaplin, & Carrigan, 1979). Some studies have found incest offenders to be as deviant as extra-familial offenders (Abel, Becker, Murphy, & Flanagan, 1981; Barsetti, Earls, Lumiere, & Belanger, 1998; Murphy, Haynes, Stalgatis, & Flanagan, 1981; Quinsey, Chaplin, & Carrigan, 1979).

On non-phallometric measures Langevin, Hucker, Handy, Purins, & Russon (1985b) reported non-significant differences in MMPI profiles, family history variables, and aspects of sexual history between incestuous and non-incestuous sex offenders against children.

Bickley & Beech (2001) raised methodological points to account for some of these findings. If for instance incest-offender samples include those offenders who have offended against stepchildren (e.g. Abel, Becker, Cunningham-Rathner, Mittelman, & Rouleau, 1988) they may include men who initiated a relationship with the victim's mother to gain access to the child (i.e. extra-familial offenders "disguised" as incest offenders). The sample size in some of the studies is also a concern: seven in a group in the case of Quinsey, Chaplin, & Carrigan (1979), and samples of unknown representativeness. Furthermore, as pointed out above, a deviant sexual preference for children cannot be reliably demonstrated in considerable numbers of child molesters (Marshall, 1997) and all the determinants that prompt or inhibit arousal under laboratory conditions are not known.

Overall, classifying offenders on the basis of single factors such as gender of victim, or relationship to victim has limited reliability or clinical usefulness with respect to risk of reconviction or the identification of treatment needs. Attempts to classify child molesters on

the basis of more than one variable will now be reviewed. Typologies have been influenced by the theoretical position of the researcher and the constructs drawn on in the theory. They are therefore influenced by what attributes the theory identifies as being relevant to offending behaviour. Most conceptualisations of variations in sexual offence behaviour have tended to combine accounts of actions in an offence with explanations of the intentions, motivations and inferred offender characteristics (Canter & Heritage, 1990).

Risk of Recidivism

The literature on risk assessment of child molesters is reviewed in this section because as with other attempts to develop typologies one of the main advantages to understanding risk of future offending is to break down the population on this basis. In the context of this review risk assessment is handled as a further and fruitful means of describing the population and sub-dividing it on the basis of risk. Before reviewing the risk prediction literature regarding its implications for classification we first need to consider some of the general work that has occurred in risk prediction.

The repetitive nature of sexual offending

There is a general perception that child molesters carry a high risk of re-offending. In reality recidivism (usually measured by reconviction) is low for this population when compared to groups of non-sexual offenders, and sex offenders against adults – rapists (Hanson & Bussiere, 1998; Quinsey, Rice & Harris, 1995; Witt, DelRosso, Oppenheim, & Ferguson, 1996). Evidence of recidivism suggests that sexual offending against children is a repetitive event for at least some offenders. Abel, Becker, Mittelman, Cunningham-Rathner & Murphy (1987) interviewed 371 child molesters who, between them, admitted to just under 39,000 acts involving contact abuse of children. A large number of offenders reported committing very few offences, whereas a small number of offenders reported a large number of offences. So risk of re-offending varies between individuals within the child molester population. Some may indeed be one-off offenders while others are persistent, habitual offenders.

Measuring recidivism risk in sex offenders against children

Work over the last two decades has generally rejected clinical judgements and other subjective approaches as unreliable means of assessing risk (e.g., Quinsey, Rice & Harris, 1995). Actuarial methods have generally outperformed clinical prediction methods (Hall, 1990) and have become the standard means of assessing offender risk. Extensive research has identified

a reliable set of both static (historical and therefore unchangeable) and dynamic (changeable) risk factors (Bonta, 1996; Champion, 1994; Gendreau, Little, & Goggin, 1996) for non-sexual offending. The set includes: young age, unstable employment, alcohol and drug abuse, pro-criminal attitudes, associating with other criminals.

The discussion above indicated that the distinction between sexual offending against children and other criminal behaviour was not absolute (Hanson & Bussiere, 1998; Hanson, Scott, & Steffy, 1995; Maletsky, 1991; Weinrott & Saylor, 1991). However sex offenders against children tend to specialise in sex offences against children (Andrews & Bonta, 1998; Baxter, *et al* 1984) to an extent that to ignore this specialisation might mean missing opportunities to identify predictor variables specific to this population. On the other hand using factors that do not apply to the population will produce errors in prediction. Because of this many persistent sex offenders have been judged to be low risk by scales designed to predict general criminal recidivism (see Hanson & Bussiere, 1998, p349).

Quinsey, Rice, & Harris (1995) addressed actuarial prediction of sexual recidivism in 178 men from 219 men admitted to a psychiatric facility for treatment following sexual offending. The sample included 124 child molesters, 28 rapists and 26 who had offended against both adults and children. Data collected included Hare's Psychopathy Checklist (PCL- R, Hare, 1991) and phallometry. During a follow-up time averaging 59 months of opportunity to offend, at least 27.5% were reconvicted. Rapists were at greater risk of reconviction than the child molesters. Overall recidivism was predicted by: offender type (rape) as defined from criminal history, phallometry (evidence of deviant arousal) and high PCL-R scores.

Prentky, Knight, & Lee (1997) used follow-up file data (prison treatment evaluation and criminal records) to assess risk factors associated with recidivism among 111 extra-familial child molesters. They found the degree of sexual preoccupation, presence of paraphilias, and number of prior sexual offences to be predictive of sexual offence recidivism. Juvenile and adult antisocial behaviour and low contact with children predicted non-sexual victim-involved offences and violent recidivism.

Hanson & Bussiere's (1998) meta-analysis that included 28,972 sex offenders (of varying types including child molesters) found an overall sexual recidivism rate for 13% for child molesters (compared to 19% for rapists) over an average follow up period of four to five

years. Over 20 of the variables considered contributed to the successful prediction of re-offending. The strongest predictor of sexual recidivism for child molesters was deviant sexual preference measured phallometrically. Other important predictors identified by the study include prior sexual offences, early onset of sexual offending, sexual choices (boys, strangers), and failure to complete therapy. Non-sexual offence recidivism by sex offenders was predicted by similar predictors to non-sexual offenders. These being marital status (single), age (young), and a history of anti-social behaviour and failure to complete therapy.

McLean & Rush (1990) obtained conviction data from the New Zealand central crime database on all 4599 individual offenders who had committed a sexual offence during an eight-year period (1978 to 1985). Criminal histories were obtained for all these sexual offenders through to December 1985. Re-offending-rates derived from these data are presented in Table 1.4.

Table 1.4 Proportion of Offenders Re-Offending Sexually during the Follow-up Period (from offence date to 31/12/85)

Offender	Offender cohorts							
Category	1978	1979	1980	1981	1982	1983	1984	1985
Rapists	6.15	9.09	5.00	3.57	4.94	3.85	.93	0
Indecent assaulters	4.26	11.27	15.52	9.62	5.77	3.03	2.78	4.55
Incest offenders	15.79	5.26	6.25	6.25	0	0	0	0
Offenders against								
The young	10.21	13.33	10.48	5.85	8.91	3.83	2.00	.38
Female <16	7.96	12.71	8.67	4.70	7.23	3.33	2.38	0
Female <12	14.52	25.00	16.39	4.84	7.81	3.08	1.27	0
Female 12-16	7.04	10.24	4.13	4.35	8.51	2.22	2.08	1.35
Male <16	23.68	18.75	21.95	21.74	10.91	2.86	0	2.22

There are clear differences in the rates of re-offending between various offence types. Consistent with international findings, offenders with male victims showed the highest rates of re-offending, followed by offences against females less than 12 years of age. Incest offenders displayed a comparatively low rate of re-offending. Detailed evaluation of the type of offences committed by incest offenders indicated that half of all subsequent sexual offending by this group was against

extra-familial victims. A degree of “specialisation” was evident in terms of types of sexual re-offending for offenders who had male victims, and for those who had initial convictions for offences committed against females under the age of twelve. Analyses to determine what other characteristics (e.g. age, prior sexual offending history, non sexual offending history, etc.) were correlated with further sexual offending was not undertaken

Kawa (2001) provided further New Zealand data on risk of future sexual offending by child molesters. She developed a prediction model based on a data set from the central crime database. This set comprised of 741 male offenders convicted of a sexual offence against a child between 1988 and 1997 (153 further records were rejected because of data irregularities or omissions). The prediction model was validated on a second set, also obtained from the central crime database, consisting of 156 of all 276 male offenders who were convicted of a sexual offence against a child between 1983 and 1988 (120 records were rejected).

Regression analysis was used to determine the relationship of a large number of criminal history and basic social and demographic variables to subsequent sexual re-offending.

The rate of sexual re-offending against children for the first set was 20.65% during the follow-up period. An interesting finding was that survival analysis on this set over periods of up to 12 years showed a fairly constant rate of re-offending indicating that risk in sexual re-offending does not decrease over time.

Kawa (2001) analysed the relationship between variables and subsequent sexual offending against children. Statistically significant relationships were found for: preference for a male victim (index offence), preference for a male victim based on the entire history of offending, diversity of offending, seriousness of offending, ethnicity, number of sexual and non sexual convictions combined, age at first sexual offence, age at first conviction for any offence, age at first non sexual conviction, and age at criterion conviction.

When tested independently, none of the following were correlated with reconviction for a sexual offence against a child: number of victims, number of prison sentences, number of sexual convictions, number of non sexual convictions, age of the victim, presence of an adult victim, presence of a non sexual conviction or diversity of offences based on the entire conviction history. This indicates a strong inter-correlation between these variables. When all significant predictors of sexual re-offending were subjected to logistic regression, only the

following showed a significant association with conviction for a further sexual offence: preference for male victims, ethnicity, and diversity of offending based on criterion conviction, presence of a female victim under the age of 12, and age at first sexual conviction. When these variables were applied to the validation set only three predictor variables were found to significantly relate further sexual offending. These were, in order of magnitude, sexual preference for a male victim, ethnicity (being Caucasian placed a person at higher risk), and age at first sexual conviction (younger indicating higher risk).

From these and other results the most commonly accepted factors in the prediction of sexual re-offending are offending history, deviant sexual arousal patterns, and previous prison sentences (Hanson & Bussiere, 1998; Prentky, Knight, & Lee, 1997; Quinsey, Rice, & Harris, 1995). Excepting deviant sexual arousal (which at least theoretically is amenable to change) these strong predictors are purely static variables. This raises the prospect of developing subgroups of child molesters on the basis of their risk of future offending, using the variables found to predict re-offending as the means of undertaking the classification.

Recently a number of risk-prediction instruments have been developed that aim to distinguish sexual offenders (including child molesters) who are a high risk of re-offending from those at a lower risk of re-offending. These include the Rapid Risk Assessment for Sex Offender Recidivism (RRASOR; Hanson, 1997a), the Static 99 (Hanson & Thornton, 1999), and the Sex Offender Risk Appraisal Guide (SORAG; Quinsey, Harris, Rice, & Cormier, 1998).

Hanson (1997a) developed the RRASOR on the basis of the Hanson & Bussiere (1998) meta-analysis. It is based on the number of past sex offences, offender age, victim gender, and the relationship to the victim, with each offender scored from 0-6. The Static-99 uses items drawn from the RRASOR (prior sexual offences, male victims, unrelated victims, age less than 25) and Thornton's Structured Anchored Clinical Judgement (SAC-J; index non-sexual violence, prior non-sexual violence, four or more sentencing dates, single, any stranger victims, any non-contact sex offences; see Grubin, 1998). Across a combined sample of 1208 offenders from four different settings Static-99 correlated .33 with sex offence recidivism and .32 with all violent recidivism (Hanson & Thornton, 1999).

Beech, Friendship, Erikson, & Hanson (2002) found that static historical factors, measured by the STATIC-99, significantly predicted recidivism over a six year follow up period. High-risk

men were more than five times more likely to be reconvicted for a sexual offence compared to low risk men. The inclusion of dynamic psychometric measures of risk (e.g. pro-offending attitudes, socio-affective problems) significantly increased the accuracy of prediction.

These tools rely on static factors that have been expected to predict recidivism many years later and therefore have limited sensitivity to changes made in treatment. Further, the relatively low recidivism rates of sexual offenders make it difficult to detect dynamic risk factors. Hanson & Harris (1998, 2000) considered antecedents of offending in a group of sex offenders in an attempt to identify dynamic factors. Comparisons with non-recidivists identified a number of dynamic risk factors including non-cooperation with supervision, victim access, anger, sexual pre-occupations, and acute changes in mood. Hanson & Harris (2001) then used social cognitive theory (Bandura, 1977) to develop a new scale to measure dynamic risk factors in sex offenders (SONAR, Sex Offender Need Assessment Rating). According to the model they adopted, recidivistic sex offenders are expected to hold deviant schema, or habitual patterns of thought and action, that facilitate offending. The likelihood that an offender will evoke such schema increases if the schema are well rehearsed, triggered by common circumstances, considered socially acceptable, and consistent with the offender's personality and values. The SONAR items are divided into five stable factors (intimacy deficits, negative social influences, attitudes tolerant to sexual offending, sexual self-regulation, general self-regulation) and four acute factors (substance abuse, negative mood, anger, victim access). The SONAR was found to have adequate internal consistency and moderate ability to distinguish recidivists from non-recidivists ($r=.43$; ROC area of .74).

Risk assessment methods are wholly empirically driven and so, without evidence from replication, cannot be used in populations other than that on which they were designed. Such replications are rarely conducted due to the many years required to gather reconviction data. Although actuarial methods can identify a group of men who are statistically at a higher risk of recidivism (i.e. reconviction) there are limits to what they can tell us about an individual. Reducing heterogeneity on the basis of implicit dimensions of offending has limited utility unless tied to a specific theory such that these instruments may have little theoretical relevance to more detailed understandings of offence processes (Bickley & Beech, 2001).

Despite concerted effort over the last decade risk assessment with sex offenders is still in its infancy. It is likely to remain an area of considerable importance, given the opportunities it

offers for prioritising offenders for treatment, advising organisations on the risks of releasing offenders from custodial conditions and allocating resources to manage offenders in the community.

Knight & Prentky's Massachusetts Treatment Centre Child Molester Typology

Knight & Prentky (Knight, 1988; Knight, 1989; Knight, Carter, & Prentky 1989; Knight & Prentky, 1990; Knight, Rosenberg & Schneider, 1985; Prentky, Knight, Rosenberg, & Lee, 1989) have developed empirically based typologies for rapists and child sex offenders using cluster analysis to identify naturally occurring homogeneous groups on the basis of offenders' similarities and differences on a specific set of attributes. The result of their effort, the Massachusetts Treatment Centre Child Molester Typology, Version 3 (MTC:CM3) is regarded as the most comprehensive typology of child molesters.

Knight, Rosenberg, & Schneider (1985) outline the comparatively complex methodology used by the MTC group to develop their typologies. Essentially they ascertained from the literature the most salient types of offenders and extracted the most discriminating typological dimensions already identified by existing classification systems. They then considered other variables with discriminatory potential and, from a combination of all these, operationalised both a preliminary rational system and relevant dimensions. They selected the typological system, mentioned above, developed by Cohen, Seghorn, & Calmus (1969), as their point of departure and attempted to operationalise the types identified by this model (MTC:CM1) but could not obtain satisfactory inter-rater reliability for the types described by this model.

They next separated the offender's style of offending and his relationship with his victims from both the intensity of his pedophilic interest and his achieved social competence. The style and relationship constructs were joined with additional characteristics to differentiate "object-related" from "exploitative" styles. Intensity of pedophilic interest and social competence were employed to define a fixation-regression dichotomisation (high intensity low social competence versus low intensity high competence). These offence-style and fixation-regression bifurcations were crossed with each other and with an instrumental-expressive aggression distinction to yield an eight-group typology (MTC:CM2). This typology still produced unacceptably low inter-rater reliability and certain types were extremely heterogeneous, while some offenders continued to fall between the groups.

With further revisions they produced a further version (MTC:CM3; Knight, Carter, & Prentky, 1989) that differed in three ways from its predecessor. First the fixated-regressed distinction of MTC:CM2 was partitioned into two separate, independent factors – the degree of fixation on children (i.e. the intensity of pedophilic interest) and the level of social competence. These two judgements were placed together on a separate axis from the rest of the system. Secondly a new type “Narcissistic” was introduced to resolve the problems of differentiating between Object-Related and Exploitative types and to represent a type that emerged from earlier cluster analyses. The integration of this type required a restructuring of the typology and the introduction of the offender’s contact with children as an initial pre-emptive discriminator on the model’s second axis. Thirdly offence-related violence was differentiated into independent physical injury and sadistic components. The resulting model delineated 24 different types of offenders. Reliability judgements ranged from excellent to fair for the various distinctions in the model but 11 of the 24 possible types of offender were not represented by their sample (i.e. contained three or fewer cases). The small number of offenders likely to fall into some of the categories will greatly hamper further research on the model. The diagram provided by Knight & Prentky (fig 2, p31, 1990) illustrates the taxonomy.

Knight & Prentky’s typology is frequently complimented for the sophistication of analysis that produced it (e.g. Marshall, 1996) and has provided a framework for others to investigate rapists and child molesters (Marshall & Laws, 2003b). It has not however been readily adopted by clinicians in treatment centres for child molesters. It may be that, as Bickley & Beech (2001) point out, its level of complexity is just too great to be practical, highlighting the clinical limitations of a statistically generated typology. It may be that the typologies lack face validity or, practically, it may be that much of the information required to assign offenders is not readily available to clinicians. A further limitation of the system is that incest-only offenders were excluded from the sample used to develop the typology. This limitation of coverage greatly reduces its usefulness for clinicians. Knight & Prentky (1990) themselves concluded that the typological system remains a speculative model with limited reliability and validity. Perhaps its enduring value is the heuristic opportunities it provides for developing theories to account for the offending of the different subtypes and the recognition of the specificity that is required in order to provide more precise assessments and more targeted interventions. To date these opportunities await to be fully realised.

Relapse Prevention and Ward & Hudson's Self-Regulation Model

Another theoretical approach to classifying sex offenders has gained significant prominence in recent years: Ward & Hudson's Self-Regulation Model (Ward & Hudson, 1998b; Ward, Hudson & Keenan, 1998). During the 1980s and 1990s the development of a comprehensive cognitive behavioural approach to understanding and managing child molestation culminated in the application of relapse prevention (RP; Marlatt, 1982; Marlatt & Gordon, 1983) to child molesters (Laws, 1989; Laws, Hudson, & Ward, 2000; Pithers, Marques, Gibat, & Marlatt, 1983). This approach requires offenders to identify situations in which they are at risk of offending (high risk situations) or other possible threats to abstaining from sexual offending, and then develop skills to prevent "relapse" (the commission of a further offence). Doubts have been expressed about the application of the original RP model to sexual offending against children, and the uncritical way that this occurred. Ward & Hudson (1996) argued that the RP model only allows for one process of relapse, emphasizing skill deficits and negative emotional states as the precursors to offending, and that, given their diversity, this might not apply to all child molesters.

Ward & Hudson (1998b) sought to redress this limitation with a model of multiple pathways toward relapse. This model was developed using a grounded theory approach with offenders' own accounts of their offending. From this four behavioural pathways towards offending were identified that accounted for the offending in the sample used by the authors. The model utilises self-regulation theory. Self-regulation refers to the internal and external processes that allow an individual to engage in goal directed activity over time and contexts. It includes the selection of goals, planning, monitoring, evaluation, and modification of behaviour to achieve one's goals in an optimally satisfactory manner. Baumeister & Heatherton (1996) identified three styles of dysfunctional self-regulation. First, individuals can fail to control their behaviour or emotions and act in a disinhibited way. Although associated with positive and negative emotional states this style is usually associated with the latter. Second, the use of ineffective strategies to achieve goals can backfire resulting in loss of control, a misregulation pattern. The third style reflects the choice of goals rather than a breakdown of self-regulation. The problem here resides in the choice of goals and the values and beliefs that reflect this. A preferential child molester may carefully plan and implement a strategy to gain access to a victim for instance. This style is likely to be associated with positive emotional states.

Ward & Hudson identified nine phases that offenders move through in the process of committing an offence. Phase 1 involves an external triggering life event (a major life transition or a daily hassle) that precipitates a relatively automatic initial appraisal. The meaning of the event for the individual is established on the basis of their personal theories, needs, abstract goals and the context in which it occurs. Inappropriate learning experiences and the belief that abusive actions can help the individual achieve valued personal goals (e.g. a sense of personal adequacy) mean the event and its appraisal prompt the second phase of the process: desire for deviant sexual activity. This could include deviant sexual fantasies, covert rehearsal of offending behaviour, and activation of memories associated with past offending. These serve to increase the accessibility to core dysfunctional beliefs and attitudes.

In phase three the desire to engage in deviant sexual activity leads to an offence related goal. The offender considers the acceptability of his desire and what, if anything, he should do about it. The ability (or inability) to tolerate the accompanying affective state is considered and may become a target for self-regulation. Ward & Hudson propose two broad classes of goals: avoidance and approach. Avoidance essentially negative in nature, i.e. the goal is not to achieve the desired activity (sexual offending). Affective states associated with this goal are likely to be negative: fear or anxiety about the unwanted event occurring. In contrast approach goals reflect a determination to sexually offend, whether in the service of other needs (such as aggression) or as an end in itself. This type of goal may be related to positive or negative states depending on the actual aims of the offender.

Phase four involves the selection of strategies to achieve the goal. Ward & Hudson propose four pathways (avoidant-passive, avoidant-active, approach-automatic, and approach-explicit), related to the two broad classes of goals. Each relapse route is distinguished by the use of distinct strategies in relation to sexual offending and each can be further divided into implicit and explicit sub-pathways. The avoidant-passive pathway is characterised by both the desire to avoid sexual offending and the failure to actively attempt to prevent this from happening. It involves the inability to control sexually deviant intentions through under-regulation or disinhibition. The avoidant-active or misregulation pathway involves an active attempt to avoid sexual offending through control of deviant thoughts, fantasies, or affective states that threaten to lead to loss of control. Selected strategies however are not appropriate or sufficient, and paradoxically increase the probability of an offence occurring. The offender might, for

instance, mistakenly use alcohol or drugs in an attempt to suppress the desire for offensive sex, or indulge in pornography as a means of exhausting desire.

Two pathways are associated with approach or acquisition goals. The approach-automatic pathway involves following an over-learned behavioural script designed to lead to the commission of the offence. Such behaviour is considered to be relatively impulsive and only planned in a rudimentary way. The goals and strategies are unlikely to be under attentional control and are activated by situational factors. Some offenders who take this pathway may experience predominantly positive emotions (due to the anticipation of indulging in the deviant sexual activity), while others may experience predominantly negative emotions (e.g. anger associated with intimidation and retaliation). The forth pathway, approach-explicit involves conscious, explicit planning and strategies that result in a sexual offence. Self-regulation is intact but inappropriate.

In phase five the offender makes contact with a victim and in doing so enters a high-risk situation reflecting the integration of relapse prevention into the model (see Laws, Hudson, & Ward, 2000). The experience of this situation varies for offenders depending on their path to it. Avoidant-passive offenders will struggle with conflicting goals, anticipating contact with a victim they are likely to experience sexual arousal. The dissonance with their goals that this provokes leads them to engage in cognitive deconstruction, disengaging from self-evaluative processes. Avoidant-active offenders also find behaviour control difficult at this point. Ineffective strategies to suppress unwanted cognitions may result in unwanted “rebound” effects and a dramatic increase in sexual thoughts and feelings. Indications that their control is failing may result in catastrophic cognitions and possibly renewed efforts to manage the situation, or an enhanced sense of personal inadequacy and strong negative affect. Approach-automatic offenders will be responding to situational cues in a rapid and automatic manner, focusing on the prospect of immediate gratification and concerned about their chances of achieving sexual pleasure or related goals. Approach-explicit offenders will likely experience increasingly positive emotions and be focused on proximal planning. Both approach subtypes are expected to have high levels of self-efficacy at this point.

Phase six concerns the immediate precursors of the sexual offence. In RP terms the offender has lapsed and is intending to engage in an offence. Ward & Hudson suggest that as a result of disinhibition, cognitive deconstruction, and pleasurable anticipation of sexual gratification

offenders following the avoidant-passive pathway replace avoidant goals for approach goals at this point. The avoidant-active offender will also judge his attempt to actively control his behaviour as a failure and adopt an approach or acquisitional goal. Offenders with approach goals will continue to strive towards goal satisfaction. Approach-automatic offenders may engage in aggressive behaviour reflecting their impulsivity, while approach-explicit offenders might show careful planning and management of the situation.

The actual sexual offence occurs in Ward & Hudson's phase seven. Here the model anticipates different perceptions of the victim depending on the pathway taken, which in turn influence behaviour towards the victim. Under-controlled or misregulated individuals are thought to be self-focused, intent on meeting their needs. Approach-explicit individuals may be more victim-focused, concerned with the victim's responses and intent on construing the event in mutual terms or as an attempt to please the victim. Approach-automatic offenders may be impulsive and deliberately intimidating, indicating a focus on their own needs.

Following the offence, the offender engages in an evaluation process (phase eight). Those following an avoidant pathway are hypothesised to evaluate themselves negatively and feel guilt and shame as a result of the discrepancy between their goal of inhibition and their behaviour. Offenders with approach goals may experience positive evaluations and resulting affect because they achieved their goals. The final phase of the model concerns the impact of sexual offending on future intentions and expectations. Those who took the avoidant pathways may resolve not to re-offend and reassert control or return to misregulation strategies. They may also re-evaluate their goals and conclude that they are unable to refrain from further offending, or they may re-evaluate the event, re-construe it in positive terms, and change their goals to approach or acquisitory ones. Approach-automatic offenders are likely to have scripts associated with their offending reinforced due to their success. Those taking the approach-explicit pathway should continue to learn from their experiences and adjust their modus operandi accordingly. Generally, the offence experience is thought to be assimilated into the existing personal theories and influence the interpretation of subsequent life events.

Ward & Hudson's model has considerable advantages over other models of sexual offending. First it allows for a range of motives, intentions and methods in offending. In describing both approach and avoidant pathways it accommodates some of the equivocal findings discussed above regarding single factors thought to contribute to offending as well as some of the simple

bifurcations. Self-esteem for instance may be an important factor in the offending of the avoidant offenders but have little relevance to the offending of approach offenders. Preferential pedophiles might be expected to adopt approach pathways. Secondly by describing phases it is able to accommodate both distal and proximal factors that contribute to offending although, being heavily influenced by relapse prevention theory, it is skewed towards the proximal end. Thirdly its level of detail and close alignment to the relapse prevention approach (Pithers, Marques, Gibat, & Marlatt, 1983), the model of choice in the treatment of sex offenders (Laws, Hudson, & Ward, 2000), makes it attractive to clinicians working with child molesters, possibly accounting for its rapid growth in popularity.

A number of studies have provided support for categorising child molesters as approach or avoidant (Hudson & Ward, 2000; Hudson, Ward, & McCormack, 1999; Proulx, Perreault, & Ouimet, 1999; Ward & Hudson, 1998b; Ward, Hudson, & Keenan, 1998; Ward, Loudon, Hudson, & Marshall, 1995). Independent support for the Ward & Hudson framework was provided by Bickley & Beech (2002) who demonstrated that the model could be reliably used to classify child molesters with inter-rater agreement found in more than 80% of the sample. Differences in psychometric and offence demographic data provided some validation of the framework across the two group distinctions (approach vs. avoidant, active vs. passive). Compared to avoidant goal offenders, approach goal offenders reported significantly higher levels of cognitive distortion regarding the appropriateness of sexual contact with children, demonstrated higher levels of emotional congruence with children, and more distortions about the impact of the abuse on their victim. They were generally found to be extra-familial offenders or offenders who had offended both intra and extra-familially, and to have boy or both boy and girl victims. More often than not they had previous convictions for sexual offences. Approach goal offenders thus resemble preferential (or fixated) offenders, high deviancy (Beech, 1998), and those at greater risk of recidivism (Hanson & Bussiere, 1998). Avoidant pathway offenders were generally in long-term relationships at the time of the offending, to have children, and to offend against girl victims. They resemble situational offenders. The distinction between those who employ active and passive strategies was less conclusive. Passive, compared to active, offenders were found to be more likely to blame external circumstances for their offending and have previous convictions for sexual offences.

There is then provisional support for Ward & Hudson's model and some construct validation in the comparisons with other typologies. The model was however developed on only 26

offenders selected to undertake a treatment programme. They may have had limited awareness of some of the more distal influences on their offending (Bickley and Beech, 2001). To date specific criteria for classifying offenders have yet to be developed. The approach remains one of the most promising developed to date for containing and accounting for the range of individuals who commit sexual offences against children.

1.2.8 Treating Sexual Offenders against Children

Before completing this discussion on child molesters a brief review of approaches to treating them will be provided. Developments in treating child molesters have tended to follow developments in understanding the make-up of the populations and what factors are thought to contribute to the problem. Early treatment approaches were derived from diverse theoretical perspectives or were based simply on practical assumptions about what prompted men to sexually offend. Often these were based on the idea that a single factor (e.g. problems relating to women, inadequacies in emotional expression) would account for the offending. Deviant sexual arousal assumed a prominent place as an early target for treatment. A variety of behavioural therapies have been employed to treat sexual deviation including aversive conditioning (Marks & Gelder; Marks Gelder, & Bancroft, 1970), covert sensitisation (Brownell, Hayes, & Barlow, 1977; Maletsky, 1980); masturbatory satiation (Abel, Mittelman, & Becker, 1985; Marshall, 1979) and stimulus fading (Barlow & Agras, 1973). Masturbatory conditioning has been used to increase non-deviant arousal, (Marques, 1970).

Pharmacological approaches have been used as a means of reducing sex drive in offenders by reducing the levels of circulatory androgens. The most commonly used anti-androgenic medications include medroxyprogesterone acetate (MPA) and cyprogestosterone acetate (CPA). These have the blunt effect of decreasing general libido rather than redirecting the focus of sexual arousal towards more appropriate partners. They are commonly used in conjunction with behavioural techniques in individuals who exhibit a strong sex drive and who are prone to impulsivity. Reviewers report that reductions in deviant thoughts and masturbation rates have not been convincingly demonstrated however (Marshall, Jones, Ward, Johnston, & Barbaree, 1991) and although many offenders show reduced recidivism rates while under medication (Bradford, 1997) there has been no experimental demonstration that this reduction is due solely to the effects of medication.

Europe has an historical tradition of castrating incarcerated sex offenders. Heim (1981) reviewed the literature on castration and concluded that it is not an effective means of reducing deviant behaviour, and that almost one third of castrated men were able to engage in intercourse. Others consider the procedure itself to be highly effective, reporting very low recidivism rates (2-4%; Bradford, 1997), but follow-up times are often unclear or unreported, and studies have tended to use pre-test and post-test designs without comparison group. Others have condemned the use of castration on ethical grounds (see Abel & Osborn, 1995).

Marshall (1971) was the first behaviour therapist to suggest a more comprehensive approach to treating sex offenders than simply focusing on deviant sexual arousal. Through the 1970s Marshall and his colleagues (Marshall, 1973; Marshall & McKnight, 1975; Marshall & Williams, 1975) expanded their programmes to include the modification of deviant and appropriate arousal, the provision of sex education, enhancement of self esteem and social skills, reduction of hostility and anger, adjunct treatment for alcohol related problems, and teaching offenders how to use leisure time effectively.

Marshall (1986) acknowledged the significant role of Abel in the development of treatment programmes for sex offenders. Abel, Mittelman, & Becker (1985) described a comprehensive approach to treating sex offenders including satiation techniques to reduce the strength of deviant sexual fantasies; covert sensitisation, pairing antecedent events of offending to negative consequences; social and assertiveness skills training; education in sexual knowledge and dysfunction; and cognitive restructuring to address the distortions offenders use to justify their offending. In this last component Abel provided early descriptions of methods to modify the distorted way in which offenders construe themselves, others (including their victims), and their offending behaviour (Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984). The incorporation of cognitive factors into treatment prompted examination of additional cognitive factors and processes so that by the mid-1980s most programmes included empathy training as an explicit treatment component (Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984; Pithers, Marques, Gibat, & Marlatt, 1983; Salter, 1988).

The development of comprehensive treatment programmes was boosted by the introduction of the relapse prevention framework by Pithers, Marques, Gibat, & Marlatt (1983) allowing the focus of treatment to become the safe management of offenders' behaviour in the community. The relapse process, often described as an offence chain, became the frame on which to hang

many of the factors thought to contribute the individual's offending behaviour. This has been further progressed by the work of Ward & Hudson (1998b) reviewed above.

There is now broad consistency between the content of well-run treatment programmes.

Detailed descriptions of the structure of treatment programmes are provided elsewhere (Ward & Hudson, 1997; Hudson, Wales, & Ward, 2000). Current treatment approaches are generally characterised by the following:

- They focus directly on the sexual offending of participants and anticipate that this is *multiply determined*. Offending may be determined by a combination of cognitive (expectations, values, perceptions), behavioural (reinforcement contingencies), affective, physiological and biological influences and environmental or situational antecedents, which operate in different ways for different people. They draw on cognitive social learning theory (e.g. Mischel, 1973) to account for the development of many of the factors that play a role in offending.
- They view these determinants as factors that cannot be “cured” or completely ameliorated but in some cases can be controlled.
- They identify predisposing factors as well as triggers and seek to cover both distal and proximal factors. Predispositions are likely to be largely cognitive (attitudinal and fantasy related) in nature. Triggering factors can be personal (alcohol, sexual needs), or situational, or both.
- They consider the role of psychological needs in addition to sexual motivations and address the following issues: deviant sexual arousal, cognitive distortions, social skills, relationship and intimacy skills, victim empathy, relapse prevention skills.
- They centre on the development of a cognitive-behavioural offence chain which includes cognitions, affective events, behaviours, and physiological response presented in a sequential fashion that account for the way in which offenders carry out their offending.
- They assist participants to identify the risks factors for future offending and have them develop a plan to reduce the likelihood of him entering a high risk situation, or allow him to exit these without offending.

Treatment Outcome

Several significant reviews have considered the success of programmes to reduce subsequent offending in participants. Researchers most often use recidivism (i.e. the percentage of clients who are identified as having committed at least one re-offence) as the index of outcome. These data are obtained from a number of sources, usually official police, parole, probation or court records. Usually recidivism is based on evidence of reconviction.

The first major review on the outcome of treatment for sex offenders was undertaken by Furby, Weinrott, & Blackshaw (1989) who considered 42 studies that provided some information on recidivism. The paucity of well-designed studies meant they compared studies of untreated offenders to other independent studies of treated offenders. Only seven studies provided both treated and untreated sex offenders. Only one of these showed treatment to be associated with reductions in sexual re-offending. Six studies reported data on treated and untreated sex offenders and general recidivism. Five of these studies showed a reduction in general offending for treated groups. It would be tempting to conclude that treating sex offenders is effective at reducing their general offending but not sexual offending. The review however is remarkable for the almost complete absence of descriptions of the treatment programmes reviewed. Like Martinson before them, they set the cat amongst the pigeons with their conclusion that “there is as yet no evidence that clinical treatment reduces rates of sex re-offences (p.27)”.

Since this review, at least four further reviews (Marshall & Anderson, 2000; Marshall, Jones, Ward, Johnston, & Barbaree, 1991; Marshall, & Pithers, 1994; and Quinsey, Harris, Rice, & Lalumiere, 1993;) and at least three meta-analyses (Alexander, 1995; Hall, 1995; Hanson, Gordon, Harris, Marques, Murphy, Quinsey & Seto, 2002) have been conducted. The difficulty of conducting research in this field has been recognised. Hall (1995) for instance could only include 12 studies that included comparable control groups in what was to be the first meta-analysis on the effectiveness of treating sex offenders. The significant effect he found for hormonal treatment was only based on four studies, one of which had a negative effect size. Hall found that overall treatment tends to reduce recidivism by about one third (from 27% to 19%). Further analysis of the studies used by Hall concluded that the treatment effects were confined to those studies that used offenders who had rejected or dropped out of treatment as comparisons subjects. The five remaining studies, which used random assignment of quasi-experimental design, did not show significant treatment effects (Rice & Harris, 1997).

Observers of this literature have fallen into two camps. Quinsey (Quinsey, Harris, Rice, & Lalumiere, 1993) remains sceptical about the evidence supporting positive outcomes for treating sex offenders. He argued that the only methodologically acceptable study of sex offender treatment outcome is that undertaken by the Sex Offender Treatment and Evaluation Project (SOTEP) at Atascadero State Hospital in California (Marques, Day, Nelson, & Miner, 1989).

SOTEP is undoubtedly the most methodologically sophisticated and rigorous study of treatment outcome with sex offenders on which data are currently available. SOTEP operated from 1985 until the treatment phase of the project ended in 1995. It is now in the follow-up phase in which recidivism data are being collected. Subjects are incarcerated rapists and child molesters. The project uses a true experimental design with random assignment of volunteer offenders to treatment and non-treatment conditions, along with a non-volunteer control. Treatment is comprehensive, well described and state of the art, using intensive cognitive-behavioural interventions based on relapse prevention with aftercare in the community. Longitudinal, multi-source, multi-target follow-up of offenders is used.

The most recent report (see Marques, Nelson, Alarcon, & Day, 2000) showed that after approximately five years in the community the 167 subjects who completed treatment had a lower sex re-offence rate (10.8%) than did the 225 volunteer control subjects (13.8%) or the 220 non-volunteer controls (13.2%). This trend has continued for several years but has not reached statistical significance. The study has consistently found that the 37 treatment dropouts display the poorest outcomes (18.9% sexual re-offending). An interesting finding is that one high-risk subgroup, child molesters with male victims, appears to be more responsive than child molesters with female victims (although this is not statistically significant).

Under rigorous experimental conditions then the outcome for sex offender treatment is not that impressive, failing to reach levels of statistical significance. Marshall has taken a more lenient view on methodological requirements. He and his colleagues (Marshall & Anderson, 2000; Marshall, Jones, Ward, Johnston, & Barbaree, 1991; Marshall, & Pithers, 1994) have noted methodological problems with the research and the strengths of the SOTEP approach but also question the ethical basis of random assignment of offenders to treatment and non-treatment groups. For these reviewers "convenience" control groups are satisfactory for evaluation as long as they are reasonably matched to the treated group on demographic and offence variables. Marshall, Jones, Ward, Johnston, & Barbaree (1991) concluded that there is evidence that

comprehensive cognitive-behavioural programmes, and those that combine anti-androgen medication with psychological treatment, are associated with significant reductions in recidivism for treated sex offenders. They found treatment to be less effective with rapists compared to incest offenders, exhibitionists, and child molesters.

These reviewers however considered comparisons between treated and non-treated offenders from different settings to be acceptable. Quinsey, Harris, Rice, & Lalumiere (1993) criticised this and Marshall (Marshall & Anderson, 2000) subsequently retracted the claim. So Marshall & Anderson's (2000) review only considered studies that provide reasonably well-matched untreated control groups, whether these are the product of random assignment or simply convenience samples. They also considered the effect of including relapse prevention in treatment on outcome results. They reviewed eleven studies published between 1989 and 1998 including an evaluation of the Kia Marama programme (Bakker, Hudson, Wales, & Riley, 1998) in which the current research was undertaken. Two studies (Hanson, Steffy, & Gauthier, 1993; Rice, Quinsey, & Harris, 1991) represented early behavioural approaches, with their primary foci being the modification of deviant sexual preference. Neither delivered a treatment effect.

Marshall & Anderson considered six studies where there was evidence of the internal management aspects of relapse prevention addressed in the programme. The Kia Marama study was included in this group. Each of the studies in this group reported significant benefits for treatment by comparing treatment groups with carefully matched controls. Marshall & Anderson concluded that comprehensive cognitive behavioural programmes with internal self-management components of RP are quite effective. While the article did not provide summary calculations, from the data reported the average reconviction rate for treated offenders in these studies was 13.4% and the average for untreated control subjects was 35.5%. Some studies report separate figures for child molesters. Averaging these, treated child molesters recidivate at a rate of 10.25% compared to a rate of 34.25% for untreated child molesters. Treated rapists recidivate at a rate of 22.6% compared to untreated rapists at 46.66%. Unfortunately follow-up times are not reported for all of the studies although these are described as satisfactory by Marshall & Anderson who argue that the studies included would satisfy "all but the most ardent enthusiasts of methodological elegance (p51)".

The only programme to meet Marshall & Anderson's criteria for comprehensiveness of treatment including both internal self-management components and extensive post-release

(“external”) management was the SOTEP study already described. Marshall & Anderson suggest the poor SOTEP result might be due to an inadvertent message conveyed to offenders by the intensity of the post-release supervision and the requirement for community based follow-up treatment. Participants may have interpreted this attention as a vote of no confidence in their ability to avoid relapse. They say Marques’ finding supports this hypothesis that relapses dramatically increase soon after the external components are removed.

The most comprehensive evaluation of treatment of sexual offenders was carried out in a large-scale meta-analysis conducted by Hanson, Gordon, Harris, Marques, Murphy, Quinsey & Seto (2002). This review examined the effectiveness of psychological treatment for sex offenders by summarising data from 43 studies (total n=9454). This included the evaluation of the Kia Marama programme. Averaged across all studies the sexual offence recidivism was lower for the treatment groups (12.3%) than the comparison groups (16.8%, 38 studies unweighted average). A similar pattern was found for general recidivism although the overall rates were higher (treatment, 27.9%, comparison 39.2 %). Cognitive behavioural and, for adolescent offenders, systemic treatment approaches, were associated with reductions in both sexual recidivism (from 17.4 to 9.9%) and general recidivism (from 51% to 32%). Older forms of treatment (operating before 1980) appeared to have little effect.

While it can be said with reasonable confidence that the pessimistic conclusions of Furby, Weinrott, & Blackshaw (1989) were overstated, opinions remain divided on the effectiveness of treatment for sex offenders. If Quinsey’s methodological standards are to be upheld it may well be nearly impossible to demonstrate effectiveness given the practical and ethical difficulties in undertaking a truly experimental comparison. Marshall’s findings are cause for continued optimism, as the results of Hanson et al’s meta-analysis. The increasing rigor with which evaluations are carried out and reported will contribute to a growing body of evidence. It is interesting to note that it may be necessary to prove relatively small effects of treatment in order to demonstrate the cost effectiveness of treating sex offenders. Prentky & Burgess (1990) conducted a cost-benefit analysis on the rehabilitation of child molesters comparing treatment costs to the costs associated with re-offending for those not treated. They found rehabilitation to be cost effective in terms of the costs saved (\$US 163,989 per offender) through reducing re-offending. The cost in dollar terms of re-offending is high. The cost in human terms is higher and provides the necessary incentive for those in this field to pursue the continued improvement of interventions.

1.3: Personality

“There are two types of people in the world:

Those who divide people into two types and those who don't”

Robert Benchley

1.3.1 Introduction

Until now this review has deliberately avoided the topic of personality as it relates to sex offenders. To approach the topic in the absence of a reasonable review of the literature related to personality, its application to offending, and crime in general, would have delivered incomplete picture. Some of the literature has already been covered, broken down into its component parts of cognitions, emotions, and behaviours in particular those relating to interpersonal actions. Having addressed the areas considered important to understanding child molestation it is now time to consider the substantial literature relating to personality. Before reviewing this literature on personality's place in understanding offending, the construct itself will be reviewed

1.3.2 The Construct of Personality

A perusal of any recent personality text (e.g. Pervin & John, 1999) reveals the breadth of the construct. Theories of personality accommodate such varied psychological constructs as consciousness and unconsciousness (Freud, Jung), stages of personality development (e.g. Erickson), temperament (e.g. Jung, Eysenck, Cloninger), learning (Skinner, Bandura, Kelly), emotions, motivation, neurosis, and coping strategies for managing psychological pain. Keeping pace with developments in social and cognitive psychology the construct of personality has grown to incorporate aspects of an individual's social functioning and to consider the cognitive style reflected in behaviour. Personality constructs can be seen in the literatures of behaviour genetics, cognitive psychology, developmental psychology, evolutionary psychology, physiological psychology, psychopathology and social psychology. Funder (2001) noted that personality psychology is as active today as at any point in its history. Classic psychoanalytic and trait paradigms are active areas of research, the behavioural paradigm has evolved into a new social-cognitive paradigm, and the humanistic paradigm is a basis of current work on cross-cultural psychology. Biology and evolutionary theory have also attained the status of new paradigms for personality.

Personality as Traits

If psychology is the study of behaviour, then personality is the study of individual behaviour. The 1990s saw a resurgence of interest in one of the fundamental questions of personality: What are the relevant dimensions of individual differences (and similarities) in personality? The major attempts to answer this question have emerged from the study of personality traits. Trait theorists focus on systematic individual differences and similarities among people. Many (e.g. Digman, 1990; Goldberg, 1993; Matthews & Deary 1998) have noted the transformation that personality research has undergone as a result of advances in the understanding of personality traits. The study of individual differences in personality represents the greatest amount of personality research (Revelle, 1995) and for some enthusiasts the field of personality *is* the study of individual differences (Buss 1989). This area is not new. For McDougal (1938) the study of personality was the study of species-wide tendencies and tendencies specific to individuals.

While definitions vary, the fundamental centre of the personality construct for trait theorists is the distinction that can be made of an individual by his or her behavioural repertoire, the regularities or consistencies within this repertoire, and its effect on how they respond or adjust to their environments. Trait theorists consider the core of human personality to be defined by a relatively small number of broad personality traits that are responsible for intrapersonal consistency and predictable interpersonal differences.

A trait is a temporally stable, cross-situational individual difference. Many attempts have been made to identify and quantify traits thought to be important to understanding and predicting human behaviour. A more thorough review than is offered here would do more than name-drop the personality categories offered by Hippocrates's four temperaments, Sheldon's three physiques, Jung's extroverts and introverts, and the combination of dimensions that Allport, Cattell, Eysenck and others have offered as means of accommodating the rich diversity that is personality. Theorists differ in terms of the categories or dimensions they use but they all

- Use the notion of traits to account for consistencies in individuals' behaviour
- View traits as dispositions that determine behaviour
- Differentiate between relatively superficial traits and more basic underlying traits
- Recognise that traits vary in breadth and generality
- Allow for some fluctuation or changes in a person's position with respect to a disposition

Revelle (1995) organised studies of individual differences along two dimensions: cognitive abilities versus affective-temperamental traits and descriptive taxonomies versus causal theories. His framework is used here.

Cognitive Abilities versus Affective-Temperamental Traits

This dimension distinguishes analyses of intellectual abilities from those of non-cognitive variables associated with affective reactions and behaviour. Cognitive measures have been used in applied settings since World War I. The emergence during the 1980s of an acceptable taxonomy for organising non-cognitive variables has contributed to the renaissance that personality underwent during the 1990s. The cognitive/non-cognitive distinction runs throughout the field. Some personality theorists specifically rule out cognitive ability as an area of study. Others include both cognitive abilities and temperamental traits as part of personality structure, while still others discuss personality and intelligence as separate domains but routinely study both. Experimental analyses have shown systematic although complex relationships between non-cognitive personality variables and cognitive performance (Revelle, 1995).

Descriptive Taxonomies versus Causal Theories

Causal Theories

For early writers traits were a reflection of internal causal properties. The ancient Greek Hippocrates for instance identified four temperaments that he associated with the activity of bodily fluids (sanguine: blood; phlegmatic: phlegm; melancholic: black bile; choleric: yellow bile). Freud identified a range of character types that he considered the result of the interaction between innate character and childrearing (Oral, Anal, and Phallic).

Eysenck's (1947, 1967) Hierarchical Model of Personality is perhaps the best known theoretically derived taxonomy. Eysenck based it on traits he believed were highly heritable and had psychophysiological foundations. He postulated a general intelligence factor (g), and three traits: Extraversion-Introversion (E), Neuroticism-Emotional Stability (N), and Psychoticism (P).

Eysenck claimed that these dimensions have biological bases strongly influenced by genetic factors. The trait of extraversion is said to be a product of central nervous system functioning, particularly the reticular activating system, and is generally characterised by a dimension of high to low stimulation-seeking, impulsivity and irritability. Those high on measures of Extraversion are sociable, have many friends, require people around to talk to, display a carefree, easy

manner, and have a high activity level. Neuroticism is said to reflect peripheral nervous system functioning, specifically the limbic system, and is described by dimension from high to low negative affectivity such as stress, anxiety, depression, and hostility. High scorers on measures of Neuroticism are worriers, anxious, depressed, have trouble sleeping, experience an array of psychosomatic symptoms, and over-reactivity of negative emotions. Psychoticism is postulated to be a product of blood chemistry, and is represented by a continuum from high to low social insensitivity, indifferent cruelty to others, and disregard of danger to self. High scorers on measures of Psychoticism are solitary, lack empathy, are often cruel and inhumane, insensitive to pain and suffering of others, aggressive, impulsive, and have antisocial tendencies.

These traits are not considered as the causes of personality and behaviour but rather as predispositions that interact with environmental events and situations to determine an individual's means of adapting to life. Eysenck used learning and conditioning principles to explain the contribution of environmental experiences to adjustment. Eysenck's theory and subsequent modifications (1990, 1991a) are essentially theories of approach and reward, inhibition and punishment, and aggression and flight (Revelle, 1995). Eysenck's system can be viewed as hierarchical in structure with P, E, and N at the top and narrower traits beneath, habitual acts beneath these, and specific acts at the lowest level.

Evidence supporting Eysenck's typology comes from Tellegen's (1985) Multidimensional Personality Questionnaire (MPQ). When factored this gives three trait dimensions similar in content to Eysenck's. Further genetic and biological support for the typology is reviewed in Revelle (1995).

Eysenck's theory inspired Cloninger's (1986, 1987) three-dimensional model of personality. Cloninger proposed that three independent dimensions of personality are related to heritable variations in patterns of responses to specific types of environmental stimuli. The first dimension, 'novelty seeking' is, according to Cloninger, due to a heritable tendency toward frequent exploratory activity and intense excitement in response to novel stimuli. The second, 'harm avoidance' is due to a heritable tendency to respond intensely to aversive stimuli and to learn to avoid punishment, novelty, and non-reward passively. The third dimension 'reward dependence' is due to a heritable tendency to respond intensely to reward and succorance and to learn to maintain rewarded behaviour. There is evidence for a neurobiological basis for these dimensions (Cloninger, 1986). Novelty seeking is correlated with low basal dopaminergic activity, harm avoidance with high serotonergic activity, and reward dependence with low basal

noradrenergic activity. Cloninger proposed that these neurobiological dimensions interact to give rise to integrated patterns of differential responses to punishment, reward, and novelty.

Cloninger (1987) proposed that combinations of extreme (high or low) variants on dimensions correspond closely to traditional descriptions of personality disorders. The Histrionic personality for instance is a combination of high novelty seeking, high reward dependence, and low harm avoidance, while the Obsessional personality is a combination of high harm avoidance, low reward dependence, and low novelty seeking.

Descriptive approaches

In the last two decades efforts have been made to develop an overall taxonomy that accounts for the vast array of human attributes by a relatively small set of dimensions or categories. Most taxonomic systems of cognitive and non-cognitive attributes cluster similar behaviours into narrow traits, then in a hierarchical fashion cluster these into higher order traits, and eventually into a limited number of dimensional types (Eysenck 1991).

At any level of this hierarchy, behaviours and traits can be found that represent blends of separate dimensions, resisting any appearance of factorial simple structure and requiring a horizontal as well as a vertical structure (Goldberg 1993a, 1993b). The problem for taxonomists is determining the optimal number of factors to describe these structures. Optimality means different things to different investigators, but includes being parsimonious, replicable, and useful (Revelle, 1995). While there is not perfect agreement there is a growing consensus among most descriptive taxonomists around the appropriate number and structure of the fundamental dimensions of personality. This will be shown in the next two sections.

The Big Five

Researchers during the later part of the 20th century took an experimental approach to studying traits, arguing that the first task was to identify and describe important individual differences and only then develop causal theories to explain them. These researchers considered traits as descriptive summaries of the attributes of an individual. They made no assumptions about internality or causality. One approach used to identify the most important traits is the lexical approach. This starts with the hypothesis that crucial individual differences have become encoded within language over time because trait terms are important for communication. This approach uses two criteria for identifying important traits: the frequency of synonyms and cross-

cultural universality. Approaches have used large lists of terms and statistical procedures such as factor analysis to distil trait adjectives into basic categories of traits.

Allport (Allport & Odbert, 1936) used this approach to identify and arrange some 18,000 trait terms selected from a dictionary on the basis of the terms having the capacity to distinguish the behaviour of one human being from that of another. Cattell (1943, 1946, 1947, 1948, 1965) sensibly reduced Allport's list by discarding uncommon and derivative terms. He then regrouped them according to semantic meaning and used factor analysis to identify the 16 personality factors that are now associated with his name. Cattell's sixteen factors (and eight second order factors) have been critiqued since the first iteration was published. Digman (1990), capturing the crux of the criticism, described their daunting complexity. Seeking to replicate Cattell's factors Fiske (1949) was unable to find anything more complex than a five-factor solution. Tupes & Christal (1961³, reprinted 1992) reported on their factor analysis of the 30 Cattell bipolar scales and agreed with Fiske that five factors (Surgency, Agreeableness, Dependability, Emotional Stability, and Culture) accounted for the observations well. Norman (1963) in turn replicated Tupes & Christal's five factors offering them as steps "towards an adequate taxonomy of personality attributes".

Borgatta (1964a, 1964b), Smith (1967), and Digman (e.g. Digman & Takemoto-Chock, 1988) have reported further replications of the five-factor solution. Since then studies have consistently produced five factors that are sufficient to account for the variability of trait terms (Digman, 1990; Goldberg, 1992; John, 1990; Widiger & Costa, 1994; Wiggins & Pincus, 1992). The five factors, known as "The Big Five" (Goldberg, 1992), reflect the most popular approach among psychologists for studying personality traits. The Big Five personality factors are:

1. **Extraversion** (sociable, outgoing, confident, forceful, energetic, wide interests, excitable)
2. **Agreeableness** (forgiving, not demanding, friendly, docile, compliant, warm sympathetic)
3. **Conscientiousness** (efficient, organised, thorough, not lazy, not careless)
4. **Neuroticism** (tense, irritable, not contented, shy, moody, not self-confident)
5. **Openness Curious** (imaginative, artistic, wide interests, excitable, unconventional)

One instantiation of the Big Five is McCrae & Costa's (e.g., McCrae, 1992; McCrae & Costa, 1996) Five Factor Model, which identifies five factors, helpfully presented by the mnemonic

³ Originally published in a US Air Force journal, out of reach to virtually all personality researchers except the likes of Norman who evidently read widely

OCEAN (Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). Clearly these are closely aligned to the Big Five although derived from a conceptually distinct model of personality (involving biosocial, genetic and environmental factors) rather than the lexical hypothesis.

The five factors are dimensions, rather than categories, so the personality of an individual can be defined by their location on five continua. The Big Five taxonomy has achieved a greater degree of consensus than any other trait taxonomy in the history of personality trait psychology. The traits are considered universal, having been recovered by more than a dozen researchers using different samples and in at least six languages as diverse as Dutch, German, Japanese, and Chinese (McCrae & Costa, 1997). They have been replicated in every decade for the past half-century, suggesting that the five-factor solution is stable over time and over the lifespan from young adulthood (Soldz & Vaillant, 1999). They have been replicated using a range of inventories (McCrae and Costa 1987). There is some support for their physiological basis (Strelau & Eysenck, 1987; Gray, 1987) and evidence that the factors and their specific facets are at least in part heritable (i.e., genetically based; Jang, McCrae, Angleitner, Riemann, & Livesley, 1998; Loehlin, McCrae, Costa, & John, 1998). Buss (1996) suggested that the factors probably had adaptive value in a prehistoric environment.

Many have observed the commonalities between the empirically derived Big Five and other systems, empirical or theoretically driven. Table 1.5 illustrates how various taxonomies relate the Big Five.

Some researchers consider five factors to be excessive and argue that a more parsimonious solution can be found with fewer factors. In this respect Eysenck's P.E. & N factors have been referred to as the "The Even Bigger 3" (EB3). While there is strong agreement that the dimensions of extraversion/ introversion and neuroticism/ emotional stability are fundamental parts of any personality taxonomy, Eysenck (1990, 1991b) argued that Agreeableness and Conscientiousness are merely facets of his Psychoticism agreeing with Block's (1977) earlier observation. This, in turn is consistent with Zuckerman's (1991, 1994) Psychoticism-Impulsivity-Sensation Seeking. EB3 proponents suggest that openness is more of a cognitive than non-cognitive construct. Guilford's (1975) system, like Eysenck's, viewed intellect as a domain separate from personality. Guilford's second-order factors appear to fit the four non-intellect factors of the five-factor model.

Table 1.5: A comparison of different personality typologies to the Big Five

Theorist	1	2	3	4	5
Fiske (1949)	Confident self-expression	Social adaptability	Conformity	Emotional Control	Inquiring intellect
Leary (1957)	Control / dominance	Affiliation / love			
Norman (1963)	Surgency	Agreeableness	Conscientiousness	Emotionality	Culture
Burgatta (1964a)	Assertiveness	Likeability	Responsibility	Emotionality	Intelligence
Cattell (1965)	Exvia (vs Invia)	Pathemia (vs Cortertia)	Superego strength	Adjustment (vs Anxiety)	Independence (vs subduedness)
Eysenck (1967)	Extraversion	Psychoticism		Neuroticism (r)	
Buss & Plomin (1975)	Activity		Impulsivity	Emotionality (r)	
Cloninger (e.g. 1986)	Novelty seeking	Reward dependence	Novelty seeking	Harm avoidance	
Tellegen (e.g. Tellegen <i>et al</i> , 1988)	Positive emotionality		Constraint	Negative emotionality	Absorption
Peabody & Goldberg (1989)	Power	Love	Work	Affect	Intellect
Digman (1990)	Extraversion	Friendly Compliance	Will to achieve	Neuroticism (r)	Intellect
Zuckerman (1991, 1994)	Extraversion		Psychoticism, Impulsivity, Sensation seeking	Neuroticism (r)	Psychoticism, Impulsivity, Sensation seeking
Goldberg (1992)	Surgency	Agreeableness	Conscientiousness	Emotional stability	Intellect
Costa & McCrae (1992b)	Extraversion	Agreeableness	Conscientiousness	Neuroticism (r)	
Wiggins (e.g. 1996)	Agency	Communion			Agency

Note: (r) means "reverse scored." Adapted from Digman (1997), Griffin & Bartholomew (1994), John (1990), and McCrae & Costa (1996)

Osgood and his associates (e.g. Osgood, May, & Miron, 1975) conducted an extensive investigation into the manner in which people employ language as descriptors of people and objects alike. Osgood's "Big Three" dimensions (Evaluation, Activity, and Potency) were obtained from factor-analysis, and in the initial analysis suggested more than three factors. Peabody and Goldberg (1989) considered Osgood's system as related to the five-factor model.

Briggs (1989) noted inconsistencies between the factors that various researchers produced. The array of factor-analytic procedures and rotations used, as well as the various methods used to label the factors across studies (McAdams, 1992) may have contributed to this. There is most disagreement around the fifth factor, commonly called Openness but also at times described as Culture and/or Intellect (as in Eysenck's types). Guilford (1975) excluded intelligence from his personality system while Costa & McCrae distinguished between openness and intelligence.

The broad bandwidth (Cronbach & Glesser, 1965) of The Big Five captures a wide range of personality types, assists the system to coexist with other theories and approaches, contributes to its ability to be replicated, and offers some predictive utility on almost any personality-relevant behaviour. This breadth however limits the fidelity with which the system can predict specific behaviours. Goldberg (1999) viewed the Big Five model as a hierarchical structure with the Big-Five factors at or near the top of the hierarchy, and located below the various lower-level "facets" that are measured by particular narrow-bandwidth personality measures (Goldberg, 1993a). He conceded that while there is agreement about the characteristics of the higher-level factors, there is no such agreement about an optimal set of lower-level facets. For example, there are 45 bipolar dimensions in the AB5C model of the Big Five (Hofstee, de Raad, and Goldberg, 1992); 30 bipolar dimensions in the Five-Factor model of Costa and McCrae operationalized in their revised NEO inventory (NEO-PI-R; Costa and McCrae, 1992b), and about 30 to 35 facets implied in the scales in Gough's (1996) California Psychological Inventory (CPI).

Others consider the five factors insufficient to cover all personality possibilities. Saucier & Goldberg (1998) found nearly all clusters of personality-relevant adjectives to be subsumed under the Big Five using the criterion that the Big Five account for at least 9% of the variance in the adjective cluster. Paunonen & Jackson (2000), however, argued that 9% was too lenient a criterion. They reanalysed the same data using a stricter criterion of 20% explained variance and obtained nine clusters of traits that fell outside of the Big Five (Religiosity, Honesty, Conceit, Deceptiveness, Conservativeness, Thrift, Humorousness, Sensuality, and Masculinity-Femininity) suggesting there may be several important personality traits beyond the Big Five.

Others have critiqued the Big Five in terms of construct validity, arguing that while they represent the structure of the lexicon on which they are based but this might not represent all aspects of personality (Briggs, 1989; McAdams, 1992). McAdams noted that the system does not clearly distinguish between “traits” and “needs” and further tends to rely on simple terms, such as “friendly”, which can be interpreted in many ways with different connotations, but which also constitute observations of strangers, rather than the range of relationships that individuals engage in. Finally there could be other personality traits that are poorly captured by terms in the natural language, such as impulsive sensation seeking (Paunonen & Jackson, 2000).

Waller & Ben-Porath (1978) advocated caution regarding clinical adoption of the Big Five. From their view support for the Big Five is based on variants of Cattell’s (1943) rating scales, and hence are better thought of as replications, rather than conceptual validations of the five-factor model.

Theoretically, the Big Five has been viewed as a descriptive taxonomy that provides surface characterisations of behavioural patterns, and as such has been utilized to explain the consistency of human behaviour but they do not completely explain the reasons or causes of human behaviour as causal taxonomies seek to do.

Circumplex taxonomies of personality

A growing number of researchers have been exploring another model of personality: The Circumplex Model of Personality and Emotions. This model focuses on determining how traits and emotions are structurally similar. It assumes that a relatively seamless circular ordering is an economical description of the relations among traits and emotions. This model can be applied to a variety of research and treatment settings including personality disorders, family therapy, occupational choice, and test construction.

This approach holds that most human behaviour is interpersonal in nature and that personality issues are best understood from a systemic or interactional point of view (Choca, Shanley, & Van Denergh, 1992; Endler & Edwards, 1988; Lanyon & Goldstein, 1971). The circumplex tradition in interpersonal psychology was inspired by the interpersonal theory of Harry Stack Sullivan (1953) and the sociological theory of George Herbert Mead (1934). Sullivan (1953) viewed personality as largely an interpersonal phenomenon, defining it as “the relatively enduring patterns of recurrent interpersonal situations which characterise a human life”. Interpersonal theory

comprises three strands of leading ideas: the principle of complementarity, the principle of circumplex structure, and the principle of vector length.

The first strand of interpersonal theory is the principle of *complementarity* (Carson, 1969; Kiesler, 1983; Orford, 1986; Wiggins, 1982). The reciprocity or complementarity of human interaction has been a central construct of interpersonal theory since Sullivan. According to Sullivan's (1953) theorem of reciprocal emotion, integration in an interpersonal situation is a process in which i) complementary needs are met (or aggravated), ii) reciprocal patterns of activity are developed (or disintegrated), and iii) foresight of satisfaction (or rebuff) of similar needs is facilitated. The broadest notion of reciprocity or complementarity is that interpersonal actions are designed to invite, pull or elicit restricted classes of reactions from persons with whom individuals interact, especially from significant others. Reactions from others are neither random nor likely to include the entire range of possible responses but tend to be restricted to a relatively narrow range of interpersonal responses (Kiesler, 1983).

Carson (1969) argued that "the purpose of interpersonal behaviour... is to induce from the other person behaviour that is complementary to the behaviour proffered... the adoption of a particular interpersonal stance in large part serves the function of producing a particular stance in the other person." Thus people in dyadic interactions negotiate the definition of their relationship through verbal and nonverbal cues. This negotiation occurs in a complementary fashion. For instance dominant reflexes elicit submissive reactions and visa versa, whereas love pulls love and hate elicits hate.

The second strand of interpersonal theory is the principle of *circumplex structure* (Leary, 1957). This contends that variables that measure interpersonal relations are arranged around a circle in a two-dimensional space called a circumplex and commonly referred to as the interpersonal circle. According to this structure interpersonal traits are expressions of two basic dimensions of interpersonal relationships identified by Leary: dominance-submission and love-hate. He presented these as orthogonal axes on the two dimensional circumplex. The "Power" axis is anchored by dominance and submission, while the "Love" axis is anchored orthogonally by love and hate. According to the principle of circumplex structure all other personality traits are blends of these two primary dimensions. Traits closer on the circumplex are conceptually and empirically more similar than those further apart. Other labels for the axes have included "Dominance" or "Control" (versus "Submissiveness") and "Affiliation" (versus "Hostility").

Conventionally the vertical axis of the circle marks the Control dimension, and the horizontal axis, the Affiliation dimension.

In presenting the circumplex, Leary (1957) offered an operational definition of complementarity. He stated, "Interpersonal reflexes tend (with a probability significantly greater than chance) to initiate or invite reciprocal interpersonal responses from the other person in the interaction that lead to a repetition of the original reflex". Conceivably there are therefore two central relationship issues for all people; how friendly/hostile they will be with each other and how much in control each will be in their relationships (Keisler, 1983).

Personality variations are, according to interpersonal theory, construed as relatively consistent styles of presentation that emphasise a particular segment of the interpersonal circle, and which are reciprocally reinforced and maintained by the reactions they elicit from others. Leary proposed that optimal adaptive functioning entails a flexible repertoire of interpersonal skills sufficient to generate behaviours represented at all parts of the circle, depending on situational demands.

The third strand of interpersonal theory, the principle of *vector length*, contends that distance from the centre of the interpersonal circle (vector length) reflects psychopathology (Wiggins, Phillips, & Trapnell, 1989). In general, people with rigid, inflexible personalities have more problems, even if such people are inflexible in a friendly direction, whereas people with flexible, adaptive personalities have fewer problems, even if such people are generally more hostile than friendly. The model allows for adjustment, and healthy and unhealthy expressions of each trait. Elements within the circumplex therefore represent a continuum, with healthy adjustment depicted close to the inner circle and maladjustment toward the outside of circle.

Wiggins (1979; Wiggins & Pincus, 1992) developed measurement scales to assess the traits represented in Leary's circumplex. He began with the lexical assumption that trait terms specify different ways in which individuals differ in various domains: interpersonal, temperament, character, material, attitude, mental, and physical. Like Leary, Wiggins was primarily concerned with interpersonal traits, defined as interactions between people involving exchanges, and separated these from other traits. According to Wiggins the two resources that define social exchange are love and status, the dimensions that define his version of the circumplex. Wiggins' circumplex has a number of advantages over Leary's. It provides an explicit definition of "interpersonal" behaviour. It specifies relationships between each trait and every other trait in the model (on the basis of adjacency, bipolarity, and orthogonality). It also alerts investigators to

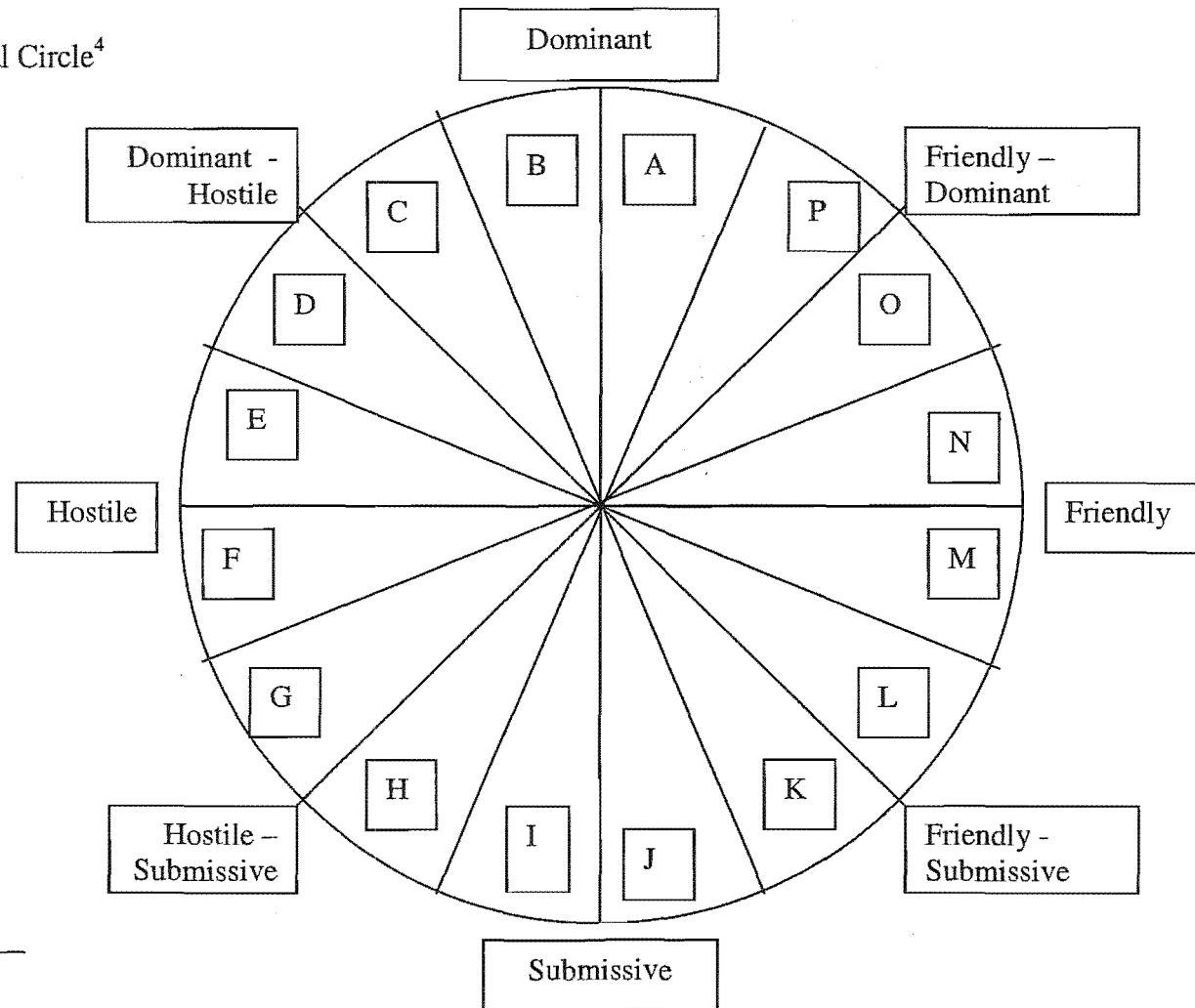
"gaps" in work on interpersonal behaviour. This version of the circumplex has received support (e.g. Wiggins & Pincus, 1992) although requires further validation (Blackburn, 1995).

Conventionally the circumplex is divided in 16 segments (labelled A-P anticlockwise from the top) but these are typically reduced to eight segments describing particular patterns of interpersonal tendencies, and are known by their two letter combinations: PA (Assured-Dominant), BC (Arrogant-Calculating), DE (Cold-Hearted), FG (Aloof-Introverted), HI (Unassured-Submissive), JK (Unassuming-Ingenuous), LM (Warm-Agreeable), and NO (Gregarious-Extroverted) (Wiggins, 1982; Wiggins, Trapnell, & Phillips, 1989). These are illustrated in Figure 1.1.

A circumplex can be viewed in three increasingly restrictive and testable ways. First, it can be viewed merely as a useful pictorial representation of a particular domain. Second, it can be viewed as implying circular order, such that variables falling close together are more related than variables that fall further apart on the circle, with opposite variables being negatively related and variables at right angles being unrelated. Third, a circumplex can be viewed as implying exact circumplex structure, such that all variables are equally spaced around the circle (Wiggins & Trobst, 1997). Psychometric tests (Inventory of Interpersonal Problems, IPP; Alden, Wiggins, & Pincus, 1990; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988; The Intrex Questionnaire, Benjamin, 1974, 1993) and geometric tests can be applied to determine whether a circular arrangement meets the criteria for exact circumplex structure (Acton & Revelle, 1998).

Acton & Revelle (1995; 2002) took a scientific approach to verifying the circumplex nature of the interpersonal domain as opposed to previous tests of unknown effectiveness (e.g. the "eyeball" test). According to these authors a perfect circumplex should adhere to at least three criteria. First, the variables in a perfect circumplex should be equidistant from the centre of the circle. Secondly these variables should be equally spaced around this circumference. Thirdly rotation of the circumplex should make no difference in terms of the variance accounted for. Acton & Revelle (2002) applied these and additional criteria to a range of psychometric tests measuring interpersonal traits. All showed circumplex structure according to the criteria they set. The authors concluded that the results corroborate interpersonal theory on this basis. They support the contention that interpersonal traits are not simple exemplars of unrelated sub-domains but are interwoven elements of a more complex, higher-order field. Any adequate description of variables measuring the breadth of interpersonal relationships will include subtle gradations around a circular continuum.

Figure 1.1 The Interpersonal Circle⁴



⁴ Based on Leary (1957)

Convergence of the Big Five and the Interpersonal Circumplex

Commentators (e.g. Digman, 1990) have argued that circumplex models are limited by their restriction to two dimensions, ignoring the possibility that other traits may have important interpersonal consequences, and by the fact that, within the circumplex no dimension is primary. Studies comparing the two approaches have generally found that the interpersonal circle corresponds to the Big Five traits of extraversion and agreeableness (Acton & Revelle, 1995; Soldz, Budman, Denby, & Merry, 1993)⁵. Attempts to relate Big Five factors to the interpersonal circumplex find Extraversion to be similar to the Dominance axis, but shifted towards NO (Gregarious-Extroverted), and Agreeableness identified with the Love axis moved towards JK (Unassuming-Ingenuous) (McCrae & Costa, 1989; Wiggins & Trapnell, 1992). Soldz, Budman, Denby, & Merry (1993) found Extraversion correlated approximately equally with Dominance and Love, placing it at NO. They placed Agreeableness approximately half way between LM (Warm-Agreeable) and JK.

Schmidt, Wagner, & Kiesler (1999) examined the relationship between the interpersonal circumplex and Big Five models of personality using the NEO Personality Inventory - Revised (NEO-PI-R), a tool designed to measure the Big Five traits, and the Impact Message Inventory (IMI), designed to measure traits on the interpersonal circumplex. They had 168 subjects rate acquaintances' personality using these instruments. Their results support the predicted finding that the NEO scales of Extraversion and Agreeableness load most strongly on the circumplex regions of Friendly-Dominance and Friendly-Submissiveness, respectively.

Other studies support the notion that the interactional and Big Five approaches are complimentary (Wiggins & Pincus, 1992; McCrae & Costa, 1989; Trapnell & Wiggins, 1990). The circumplex is intended to include only dispositions related to interpersonal interactions (Wiggins, 1979). It offers opportunities for fine-grained analysis of interpersonal aspects of personality (Wiggins & Pincus, 1989) whereas the five-factor model aims at comprehensiveness, and so includes affective, experiential, and motivational traits as well as interpersonal traits (McCrae & Costa, 1989). There is some limited evidence that the three Big Five factors not generally linked to the interpersonal circle may also have some connection to it. Wagner, & Kiesler (1999) found the NEO domains of Neuroticism, Conscientiousness, and Openness (to a lesser extent) also showed

⁵ By virtue of the fact that a circumplex (or at least a two dimensional representative space) can be created out of any two variables, a range of circumplexes have been developed from combinations of the Big Five factors: The Abridged Big Five Circumplex; The interpersonal circumplex E x A; The affective circumplex E x N; Extraversion x Conscientiousness; Neuroticism x Agreeableness; Neuroticism x Conscientiousness; Agreeableness x Conscientiousness (Goldberg, 1992)

projections onto the circular structure. This is perhaps understandable because, whilst they may not be strictly interpersonal, they may impact on interpersonal activity.

The interpersonal circumplex assesses a number of specific traits that are not fully tapped by measurements of the Big Five dimensions of A and E. Wiggins & Pincus (1992) described the relationship between the two thus: The five-factor model provides a comprehensive super-ordinate taxonomy of individual differences that includes a simple-structure representation of the interpersonal dimensions of surgency/ extraversion and agreeableness. The circumplex is supported by a rich theory of interpersonal behaviour whereas the Big Five are relatively atheoretical (Blackburn, 2000b). As will be seen below this theoretical basis is compatible with current theories in cognitive and social psychology. Relevant to the current study with offenders Blackburn (2000b) noted that the interpersonal circumplex is especially relevant to offenders because dominant-hostile styles are associated with interpersonal conflict and aggression.

Carson (1989) wagered that in sorting the basic dimensions of personality, variables with an interpersonal referent would provide a large share of the candidates. Work on the relationship between the interpersonal circumplex and the Big Five supports his prediction. Taken together the Big Five and circumplex models provide a comprehensive framework of personality from a trait perspective. In turn these have implications for understanding social behaviour – how individuals behave with one another.

Personality and Social Behaviour

The schools of personality psychology and social psychology both deal with stability, regularity, and lawfulness in human behaviour but have not always seen eye to eye. Much of the apparent antipathy between the camps seems due to an eagerness to separate into groups loosely called dispositionalists (those who consider human behaviour to be explained and accounted for by dispositions - traits, situationists, who emphasize the role of the environment on individuals' behaviour, and interactionists, who seek to combine the approaches (Magnusson, 1981; Magnusson & Endler, 1977; See Kihlstrom, 1987; Snyder & Ickes, 1985 for extended discussions).

The personality approach attracted criticism during the 1960s due to the lack of agreement on a definition of personality, failure to show that tests designed to measure aspects of personality had acceptable reliability and validity, and failure to replicate studies examining personality (Pervin, 1990). Within the fracas Mischel (1968) dealt a blow to personality psychology by highlighting the trait approach's limits in predicting behaviour of individuals across situations. His position

however was widely misunderstood (Mischel, 1973) and he subsequently accommodated both traits and situational factors in his social cognitive theory (Mischel & Shoda, 1995; Wright & Mischel, 1987).

Personality and Social Cognitions

Prompted by developments in the analysis of cognitive processes, a new perspective on personality emerged during the 1980s (e.g. Bandura, 1986; Mischel, 1990). Some of the products of this approach are relevant given the attention given to the social cognitions of sex offenders reviewed in the last chapter but will only be dealt with briefly here. Safran (1984) drew similarities between Sullivan's (1953) interpersonal conceptions of psychotherapy and those of the cognitive behavioural tradition, adding motivational and interpersonal aspects that are missing from the latter. Central to this idea is that all individuals experience distinctive regularities in their social interactions. These patterns, according to Sullivan and Safran, are maintained by a cognitive interpersonal loop in which people's expectations result in certain interpersonal actions, which elicit predictable responses from others, which in turn confirm their expectations.

Safran (1990a, 1990b) described an ecological approach to human functioning in which all psychological processes are viewed from a functional perspective. From this a central postulate of the interpersonal perspective is that the more survival-relevant events for human beings involve interactions with other human beings, suggesting a "wired in" propensity for relatedness to others. Safran (1990a) argued that generic cognitive representations of interpersonal events (interpersonal schemas) shape interpersonal perceptions and lead to plans, strategies, and behaviours that in turn shape the environment in a manner which confirms the perceptions. Psychologically maladjusted individuals have relatively negative and rigid expectations about the characteristics of others, and rigid and constricting beliefs about the way in which they must be in order to maintain interpersonal relatedness. Rigid and restrictive interpersonal schemas in turn produce a restricted range of interpersonal behaviours. Safran (1990b) went on to hypothesize that the core cognitive structures underlying clinical problems are interpersonal schemas.

Baldwin (1992) reviewed a range of theoretical models describing so-called relational schemas, cognitive structures representing regularities in patterns of interpersonal relatedness. He proposed that elements of a relational schema include an interpersonal script for the interaction pattern, a self-schema for how self is experienced in that interpersonal situation, and a schema for the other person in the interaction. This incomplete review is intended only to illustrate how a field of

inquiry, relevant to the study of sex offenders, can be linked to developments in the field of personality.

Personality Disorders

No discussion of personality would be complete without some mention of personality disorders. The present review will use this section to introduce the personality theory of Theodore Millon. Renewed interest in personality is partly due to the recognition that it is a persistent risk factor for psychopathology (Krueger, Caspi, Moffit, Silva, & McGee, 1996). Interest has been spurred by the APA's inclusion, since the third edition of the DSM classification (DSM III, APA, 1980), of personality disorders on a separate axis (II) from mental disorders and clinical syndromes (Axis I). The latest edition, DSM-IV-TR (APA, 2000) continues this approach defining personality disorders as "A lasting pattern of behavior and inner experience that markedly deviates from norms of the patient's culture." This pattern is fixed and affects many personal and social situations. The symptoms cause clinically important distress or impair work, social or personal functioning. The pattern must be manifested in at least two of these areas: i) affect (appropriateness, intensity, lability and range of emotions), ii) cognition (how the patient perceives and interprets self, others and events), iii) impulse control, and iv) interpersonal functioning.

In DSM personality disorders are grouped in three clusters. Cluster A, referred to as odd or eccentric, includes three disorders (Paranoid, Schizoid, Schizotypal). Cluster B, known as the emotional or dramatic disorders, includes Borderline, Histrionic, Narcissistic, and Antisocial personality disorders. Cluster C, known as anxious or fearful, includes Avoidant, Dependent, and Obsessive-Compulsive personality disorders.

Millon (1969, 1981, 1990), an influential member of the working group that established the DSM personality disorder diagnostic system, influenced the construction and groupings of these disorders. Grounded in evolutionary theory, Millon's biopsychosocial model of personality seeks to explicate the structure and styles of personality by reference to deficient, imbalanced, or conflicted modes of ecological adaptation and reproductive strategies. He identified four phases in which evolutionary principles are demonstrated: Existence, Adaptation, Replication, and Abstraction. The first relates to the transformation of random or less organized states into those possessing distinct structures of greater organization; the second refers to homeostatic processes employed to sustain survival in open ecosystems; the third pertains to reproductive styles that maximize the diversification and selection of ecologically effective attributes; and the fourth

concerns the emergence of competencies that foster anticipatory planning and reasoned decision-making. Millon used polarities from the first three phases to construct his classification system of personality disorders, providing content for the first of two levels at which the theory is operationalized, the second being the specification of functional-structural domains for each derived construct.

The first phase, existence, according to Millon (1990) concerns the maintenance of integrative phenomena (whether nuclear particle, virus, or human being), against a background of entropic matter. Evolutionary mechanisms derived from this stage regard life-enhancement and life-preservation. The former are concerned with orienting individuals toward improvement in quality of life; the latter with orienting individuals away from actions or environments that decrease quality of life, or even jeopardize existence itself. Millon referred to these as existential aims. At the highest level of abstraction these mechanisms form a pleasure-pain polarity. Some individuals are conflicted in regard to these existential aims (for example, the sadistic), while others possess deficits in these crucial substrates (for example, the schizoid).

Once an integrative structure (e.g. a human being) exists, it must maintain its existence through exchanges of energy and information with its environment. The second evolutionary stage therefore relates to what Millon terms "modes of adaptation". These are also framed as a two-part polarity, a passive orientation (a tendency to accommodate to one's ecological niche), versus an active orientation (a tendency to modify or intervene in one's surrounds). These modes of adaptation concern how that which exists endures.

To circumvent the time-limited existence of any life form, organisms have developed strategies by which to leave progeny. Biologists refer to these strategies as "self-propagating" at one polar extreme, and "other-nurturing" at the second extreme. Psychologically, in Millon's model, the former strategy is disposed toward egotistic, insensitive, inconsiderate, and uncaring actions; while the latter is disposed towards affiliative, intimate, protective, and solicitous actions.

Not all individuals fall at the centre of each of Millon's polarities but most exhibit a reasonable balance on one or other of the polarity pairs. For Millon individual differences in personality are a reflection of the individual's relative positions on each polarity component. Personalities termed "deficient" lack the capacity to experience or to enact certain aspects of the three polarities (e. g., the schizoid has a faulty substrate for both "pleasure" and "pain"); those termed "imbalanced" lean toward one or other extremes of a polarity (e. g., the dependent is oriented

almost exclusively to receiving the support and nurturance of others); and those termed “conflicted” struggle with ambivalences toward opposing ends of a bipolarity (e. g., the passive-aggressive vacillates between adhering to the expectancies of others versus enacting what is wished for one's self).

Millon includes three additional pathological personality patterns in his model: Schizotypal, Borderline, and Paranoid. These represent structurally deficient personalities in more advanced stages of pathology. These differ from the basic personality disorders by several criteria, notably, deficits in social competence and frequent (but usually reversible) psychotic episodes.

A diagrammatic representation of Millon’s theory based taxonomy is presented in Figure 1.2

Figure 1.2: Millon’s Model of Personality Disorders*

	Existential Aim		Replication Strategy		
	Life enhancement –v- Life preservation		Propagation –v- Nurturance		
Polarity	Pleasure –v- pain		Self –v- Other		
Deficiency, Imbalance or Conflict	Pleasure (low) Pain (low or high)	Pleasure – Pain Reversal	Self (low) Other (high)	Self (high) Other (low)	Self – other reversal
	Personality Disorder				
Passive: Accommodation	Schizoid	Masochistic/ Self defeating	Dependent	Narcissistic	Compulsive
	Depressive				
Active: Modification	Avoidant	Sadistic	Histrionic	Antisocial	Negativistic
Structural Pathology	Schizotypal	Borderline Paranoid	Borderline	Paranoid	Borderline Paranoid
Interpersonal Description:	Detached	Discordant	Dependent	Independent	Ambivalent

* Adapted from Millon 1990, p128

Criticisms of the DSM classification

There is an extensive critical literature on the DSM system of classifying personality disorders. Farmer (2000) provided a recent and thorough review of them and Blackburn (2000a, 2000b), provided an overview of the main issues with respect to assessing and treating personality disorders in offender populations. These issues can be summarised as follows:

Reliability: Farmer (2000) noted that the criteria sets within personality disorders have moderate levels of internal consistency but that problems occur when all the DSM personality disorder features are considered simultaneously (e.g. in factor analytic studies). This suggests that while symptoms within individual personality disorders are conceptually related their ability to discern one personality disorder from another is generally modest. Thus, despite the provision of explicit criteria, the categorical diagnosis of personality disorders has not proved reliable. Farmer (2000) reported an inter-clinician agreement (kappa) coefficient of 0.49 for diagnoses of anti-social personality disorder. Reliability improved to between 0.62 and 0.77 with the use of questionnaires and semi-structured interviews. Long-term stability studies generally suggest modest to poor stability with test-retest reliability coefficients generally less than .60.

Validity: Farmer (2000) reported three issues that might compromise the validity of assessments of personality disorder. First is the interaction of low base rate and the sensitivity and specificity of a measure. Second is the ability of persons to accurately report personality disorder features. Thirdly is a sex bias, and its effect on the diagnostic process. Farmer reported evidence on the detrimental effect of each of these on the reliability of personality disorder diagnoses.

Poor discriminant validity (measures of different constructs are distinguished from each other) is demonstrated by high overlapping diagnoses. Studies show that between half and two thirds of psychiatric patients meet the criteria for more than one personality disorder. Co-morbidity however is not random but suggests heterogeneous patterns of PD that cut across current categories. Studies of concurrent validity indicate that questionnaires agree reasonably well with other questionnaires but less clearly with interviews whereas interviews agree only moderately with other interviews. Overall, agreement on the diagnosis of specific categories is poor.

The DSM classification system has a range of problems related to construct validity. Blackburn (2000b) identified the mixed use of traits and specific response dispositions inconsistently making up the categories as contributing to structural problems with the classification. Individual criteria do not discriminate between the categories with 90% of them correlated to

two or more categories. Factor analysis fails to confirm that the diagnostic criteria are organised into the categories, often producing three or four high-order factors that some interpret as support for the three clusters while others refute this.

Regarding external aspects of validity Blackburn (2000b) noted poor convergent validity (different measures of the same construct agree with each other) is demonstrated by low concurrent validity of measures of personality disorder. Evidence for predictive validity (measures differentially predict behaviour, treatment response, or outcome) is limited mainly to findings that the presence of some form of personality deviation predicts poorer outcome in the treatment of Axis I disorders, although this appears to be fairly non-specific. Further the classifications offered by DSM-IV might not adequately cover all possible manifestations of personality dysfunction. Blackburn (2000b) considered coverage relevant to forensic psychiatry to be particularly poor.

Blackburn concluded that the validity of the DSM system is weak. Despite its connection to Millon's theory, DSM-III reflected an empiricist philosophy, which aimed to produce a theoretically neutral classification of mental disorders. Critics of pure empiricism have pointed out that it is impossible to derive a classification scheme in science without some theoretical assumptions about the classes of interest. Blackburn (2000b) noted that all the personality disorder classes carry some theoretical baggage but do not reflect any single theory of personality. This is perhaps the worst of both worlds.

Personality Disorders, the Big Five, and the Interpersonal Circumplex

The merits of categorical and dimensional representations of personality disorders have been extensively debated (Blackburn, 2000b, Clark, Livesley, & Morey, 1997). The design of the DSM system implies qualitative distinctions between normality and abnormality and between particular types of personality disorders. A dimensional approach has been suggested as an alternative means of structuring personality, and therefore, personality disorders. In this approach dysfunctional traits of personality disorders are seen as extreme variants of normal traits, and are related to dimensions of human variation identified through multivariate research on the structure of normal personality (Blackburn, 2000b). Farmer (2000) recognized some limitations with a dimensional approach. Categorical diagnoses are easier to communicate and describe by a single term that can convey large amounts of information, which can aid effective management. A dimensional approach requires the number of dimensions involved to be determined, means of assessing personality on the basis of these dimensions, and communicating

the results of assessments. Despite these limitations an improved reliability is likely to be gained from a dimensional approach. Farmer (2000) advocated a shift from the categorical depiction of personality disorders to a dimensional or prototypical representation.

Empirical data strongly supports a dimensional representation of personality pathology. Tyrer & Alexander (1979) found a similar structure underlying personality traits in both personality disordered and non-disordered samples. Genetic contributions to personality disorders are comparable to those of normal personality dimensions (see Blackburn, 2000b). Although few, studies using statistical methods that identify latent class taxons have not provided support for discrete personality disorder classes except for Schizotypal disorder (Widiger & Frances, 1994).

The high degree of consensus that the dimensional structure of personality is best represented by the Big Five factors, and that this model is complemented by the interpersonal circumplex, has lead to a reconsideration of personality disorder in light of these models. Advocates of both these approaches have considered their application to personality disorders. Widiger (e.g., 1993a, 1993b) has opposed the current DSM structure, advocating for the alternative offered by the Big Five essentially arguing that the Big Five factors are sufficient dimensions to account for the range of normal as well as abnormal personality.

Soldz, Budman, Denby, & Merry (1993), examining the structure of personality disorders, found they could be meaningfully mapped onto the Big Five factor space. They considered that the Big Five personality factors could adequately distinguish amongst the personality disorders. Widiger & Costa (1994) found substantial correlations between the Big Five and interview and self-report measures of schizoid, avoidant, and borderline disorders. Borderline personality disorder was found to be strongly related to high N and to a lesser extent low A. Given the high prevalence rates for borderline personality disorder, and its co-morbidity with other personality disorders this finding supports the view that borderline personality disorder represents a severe level of personality disorganisation (as in Millon's model, 1990) rather than a specific class of disorder.

Factors extracted from clinical assessments of DSM personality disorders have been interpreted as reflecting variants of the Big Five (Widiger & Frances, 1994). Factor analysis of interview measures of the 11 DSM-III personality disorders obtained from violent offenders supports this proposal (Blackburn & Cloid, 1998).

On the basis of this evidence, the Big Five provide an alternative, empirically based system for describing personality disorders such that they can be understood within a wider context of personality research.

Since Wiggins (1982) a number of researchers have also considered the relevance of the interpersonal circle to personality disorders. Millon (1987) proposed a circumplex portrayal of the then-new DSM-III-R personality disorders defined by a vertical axis (Autonomous – Enmeshed) and a horizontal axis (Impassive to Expressive) (see Figure 1 p. 354, Strack, Lorr, & Campbell, 1990). Strack, Lorr, & Campbell (1990) examined this using Millon's (1987) MCMI-II and another self-report measure of personality. They found that the MCMI-II scales did approach a good circular order. They found one axis to be defined by Aggressive and Narcissistic personality styles at one pole and Avoidant and Schizotypal at the other, and noted that this is similar to the Expressive-Impassive dimension proposed by Millon.

Strack, Lorr, & Campbell (1990) found the orthogonal axis to be best marked by Borderline versus Compulsive styles that they suggest represents a dimension of Impulsivity versus Compulsivity. They noted that this does not correspond with Millon's Autonomous – Enmeshed dimension, which he marked with Antisocial and Dependent personality styles. If the location of the vertical and horizontal axes is ignored (because these are essentially arbitrarily placed in developing a circumplex) the authors noted that Borderline and Compulsive styles were antithetical in their results, as predicted by Millon, and orthogonal to this dimension, Avoidant and Narcissistic styles are located antithetically. This is quite similar to Millon's prediction. According to this finding Antisocial and Aggressive styles were incorrectly positioned in Millon's circumplex. The finding supports the notion that the personality disorders can be arranged within a circumplex.

Widiger & Kelso (1983) predicted that the DSM disorders would be located in the circumplex quadrants as follows:

AP, NO:	Compulsive, Borderline
BC, DE:	Narcissistic, Paranoid, Antisocial
FG, HI:	Schizoid, Passive-Aggressive, Schizotypal, Avoidant, Borderline
JK, LK:	Dependent, Histrionic, Borderline

Sim & Romney (1990) found support for this in an interesting study using MCMI-I scores (Millon, 1983) and ratings by nursing staff. They mapped all the personality disorders onto the

circumplex in the positions predicted by Widiger & Kelso except for Histrionic which they located in the AP, NO quadrant. Soldz, Budman, Denby, & Merry (1993) found that the personality disorders could be mapped onto the interpersonal circle, demonstrating near-perfect circumplex properties

Wiggins & Pincus (1989), using self report measures, found that antisocial, narcissistic, and histrionic personalities fall in the coercive-sociable (AP, NO) quadrant, while schizoid and avoidant personalities were characterised by withdrawn-submissive styles (FG, HI quadrant). Finally, Blackburn (1993b) mapped the MCMI scores of groups of British Special Hospital patients onto the circumplex with meaningful differences between the groups evident from their circumplex profiles.

1.3.3 Conclusions

The field of personality has seen rapid growth over the last three decades. Key developments include the identification of five factors that consistently account for the differences individuals display in terms of traits. Related to this there is now strong evidence that at least those traits that are interpersonal in nature can be mapped onto an interpersonal circumplex. Combined these models provide a powerful heuristic for understanding individual differences. Furthermore theoretical and empirical connections have been made between models of personality and social behaviour and cognitions. These are relevant to the current study given the emphasis on these areas reviewed in the last chapter. Lastly, personality disorders have been associated with the Big Five and with the circumplex model, continuing the convergence of evidence that personality, as a construct can provide a valuable framework for understanding individual differences.

The challenge articulated in the last chapter has been to account for the individual differences that are evident in the population who offend sexually against children. The next chapter will examine the application of personality theory to offending in general and to violent and sexual offending in particular.

1.4 Personality & Crime

“Once upon a time we had no personalities. Is it not exciting to see their return?”

Lewis Goldberg, 1993.

1.4.1 The Link between Personality and Offending

Given developments in the field of personality that have been described as “*seismic*” (Blackburn, 2000a), “*a renaissance*” (Caspi, Moffit, Silva, Stouthamer-Loeber, Krueger, & Schmutte, 1994), and “*an intellectually vigorous enterprise poised on the brink of a solution to a scientific problem whose roots extend back at least to Aristotle*” (Goldberg, 1993), and the links established between disciplines within psychology (personality, social psychology, cognitive psychology), one would expect the advances that have occurred in the personality field to have flowed through to the psychological understanding of offending. Sustaining the hyperbole, there has been a “*virtual explosion*” of research demonstrating the relationship of criminal sentiments and attitudinal factors, beliefs and values systems, and personality to criminal behaviour (Weekes & Morison, 1993).

For years, because of ideological concerns, and what Gendreau, Little, & Goggin (1996) described as “professional self interest emanating from significant segments of the professions of criminology and sociology”, offenders’ personal attitudes and beliefs, temperament and personality were “cavalierly ignored” in understandings of offending. Behavioural treatments of sex offenders initially gave little attention to the way offender's interacted with others. Other approaches overlooked offender impulses and offence-related behaviours (Lanyon, 1986).

Personality has, however, a close history with the psychological understanding of crime in terms of theories of crime, and research linking personality measures with crime and the risk of further offending. These approaches will be introduced in sequence. Particular research examining the association between personality and violence will then be reviewed along with the attempts to apply this approach to other offenders. Finally in this chapter research on personality and child molesters using two common personality tests will be reviewed.

1.4.2 Theories on Personality and Crime

Four theories of crime that rely on personality to account for criminal behaviour have been selected for review. This is not an exhaustive review. The selected approaches illustrate the diversity, but also the comparability, of approaches within this field, while respectively representing singular notions of a criminal personality, general theories emphasizing a single personality trait, developmental approaches, and multi-faceted approaches.

Yochelson & Samenow's Criminal Personality

Yochelson & Samenow (1982, 1985, 1986) define their version of the “criminal personality” by 52 thinking patterns, which, they argue, distinguish offenders from non-offenders. Many of these are of a moral nature (e.g. self-centredness), while others are indicators of antisocial attitudes (Andrews & Bonta, 1998).

Wulach (1988) compared Yochelson & Samenow's Criminal Personality to a combination of the DSM III-R (APA, 1987) Antisocial, Narcissistic, Borderline and Histrionic personality disorders as well as to Cleckley's (1976) psychopath. The common ground between these varied approaches offers some validation for Yochelson & Samenow's personality type. Yochelson and Samenow's approach to criminal personality has had a substantial influence on the understanding of how attitudes and beliefs influence offending. Interventions based on this approach focus on constant challenging of the aberrant thinking patterns. The approach has influenced treatment of cognitive factors in offending including child sexual offending (Jenkins-Hall, 1989, Murphy, 1990).

The notion of a singular criminal personality or a unique category of people who are socially deviant and prone to aggression has however generally proved unfruitful and has been criticised (Blackburn, 1989, West, 1988, Wulach, 1983). Andrews & Bonta (1998) concluded that there is no evidence to warrant awarding the approach the status of “a new panacea”.

Gottfredson & Hirschi General (Self-Control) Theory of Crime

Gottfredson & Hirschi (1990) drew on the psychodynamic notion of psychological maturity to present their general theory of crime. They proposed that a single personality variable, low self control, combined with opportunity, accounts for stable individual differences in criminal behaviour. They conceptualised low self-control as an enduring characteristic developed early in life and consisting of six elements:

- 1) a “here and now” orientation with limited consideration of future consequences of behaviour;
- 2) a preference for simple tasks that do not require diligence, tenacity, or persistence;
- 3) a tendency for adventure and thrill seeking and a perception of criminal activity as exciting, risky or thrilling;
- 4) a tendency to embrace physical rather than mental tasks;
- 5) a tendency to be self-centred and selfish in meeting needs and desires, and;
- 6) a very low tolerance for frustration and anger.

According to Gottfredson & Hirschi (1990) their theory is not personality-based, yet their construct of low self-control is similar to the personality dimension of impulsivity and shares some similarities with Eysenck's extraversion. The authors do not provide direct research to support their theory, and Andrews & Bonta (1998) note a range of conceptual and measurement issues with the six elements.

The approach suffers from the limitations (outlined in Chapter 2) of attempts to differentiate offenders from non-offenders on the basis of a single factor. Evidence for specialisation amongst offender subgroups also argues against a general theory of crime

Moffitt's Developmental Theory

A number of researchers have considered the crime-personality link from a longitudinal perspective. Studies show that chronic offenders display antisocial and delinquent behaviours during childhood and exhibit certain personality characteristics associated with offending. Stattin & Magnusson (1989) found a positive relationship between early aggressive behaviour and later crime amongst male subjects. Aggressive boys showed restless behaviour, poor concentration, and poor peer relationships with other children. Farrington & West (1990) found that children who became juvenile delinquents were more likely to have been rated as troublesome by teachers, and tended to be hyperactive, impulsive and lacking in concentration. Using a New Zealand sample Silva (1990) studied how well temperamental qualities of three year olds predict personality traits at 18. Children labelled under-controlled at three had a behavioural style at 18 characterised by low constraint, danger seeking, impulsive, and proneness to negative emotions. Caspi, Henry, McGee, Moffitt, & Silva (1995) found lack of control among children at age three to be associated with evidence of conduct disorder in adolescence.

On the basis of such studies Moffitt (1993) proposed a dual taxonomy of offenders: those whose criminal behaviour is limited to adolescence and those whose antisocial behaviour persists across the life course. Adolescence-limited offenders offend as a rebellious act due to the gap they experience between their physical and mental capability of achieving adult status and the lack of actual opportunity to achieve this until later in life. Life course persistent offenders exhibit anti-social behaviour that is stable over time. They tend to be aggressive, offend in various situations and display escalating seriousness in offending across the life course. Moffitt proposed that life course persistent offenders are affected by neurological deficits (inherited or inflicted perinatally) but that their sustained antisocial behaviour is also influenced by "cumulative continuity" in which their interactional style channels them into environments that

reinforce that style, and “interactional continuity” in which their style evokes reciprocal sustaining responses from others. These interactions serve to sustain early-established behaviour patterns across the life span (Caspi, Bem, & Elder, 1989).

Caspi, Moffit, Silva, Stouthamer-Loeber, Krueger, & Schmutte (1994) examined the relationship between personality traits and crime in two studies. Using an entire birth cohort from a New Zealand city and multiple measures (self-report, other report, official records) they found that a personality configuration characterised by high negative emotionality (tendency to experience aversive affective states) and weak constraint (poor impulse control) predicted antisocial acts in 18-year-old males and females. They confirmed the finding in a replication of the study in an ethnically diverse Pittsburgh sample. Moreover they found that scores on these measures predicted the seriousness of offences committed by the group. Those who committed serious crimes had significantly higher scores on Negative Emotionality and lower scores on Constraint. The findings are consistent with an early study by Glueck & Glueck (1950) who compared delinquents and non-delinquent controls on the Rorschach test. Delinquents were more assertive, defiant ambivalent to authority, hostile, suspicious, destructive, impulsive vivacious, and extroverted. The authors suggested that their findings partially support Gottfredson & Hirschi’s (1990) theory. They also confirm concerns that this theory is simplistic and that crime-proneness is not defined by a single tendency but by multiple psychological components.

The authors considered both negative affectivity and constraint to have specific neurobiological underpinnings⁶ and surmised that negative emotionality might be influenced by a range of factors including family environment, particularly harsh, inconsistent disciplinary practices and a chaotic home environment (shown to predict later aggression), and family dynamics, such as parental conflict.

Eysenck’s Theory of Criminal Behaviour

Eysenck’s account of criminal behaviour (Eysenck, 1977; Eysenck & Gudjonsson, 1989) stemmed from his general theory of personality (Eysenck, 1967, 1981). According to Eysenck criminality and antisocial conduct are positively and causally related to high Psychoticism (P), high Extroversion (E), and high Neuroticism (N). Eysenck posited that extroverts (and possibly individuals high on Psychoticism) have biologically determined low degrees of arousal and arousability. These lead to behaviours (risk taking, sensation seeking, impulsivity) that increase cortical arousal to an acceptable level for the individual. In the absence of high N these factors

⁶ Neuro-cognitive explanations for antisocial personality disorders are reviewed by Blair & Frith (2000)

may lead to arousal-producing activities such as sports and adventure. According to Eysenck, the presence of N influences learned behaviour patterns based on this biological foundation to increase the antisocial behaviour produced by the P and E personality traits.

Eysenck emphasised the role of classical conditioning during the socialisation of children in his understanding of the development of criminal behaviour. He postulated that children develop a “conscience” during the socialisation process through conditioning in response to punishment for misbehaviour but that some individuals are less responsive to this process than others.

Responsivity to punishment is said to be reduced by lower cortical arousal in individuals high on extroversion, impeding their socialisation and the development of conscience. The effects of reduced conditionability are compounded for those high on the N dimension, where heightened responsivity to need states further increases the likelihood that individuals will engage in prohibited behaviour. Furthermore, those high on the P dimension, displaying decreased sensitivity to others and danger to self, are less likely to refrain from criminal behaviour.

There is some evidence to support Eysenck’s approach. Eysenck & Gudjonsson (1989) described several studies using large samples of nearly 2000 prisoners and a similar size control group showing that the prisoners score significantly higher on P, E, and N than the controls. They report other studies of children, which compare self-ratings of antisocial behaviour and observed levels of “naughtiness” to the number of Eysenck’s personality scales on which subjects score highly. Those with high anti-social and naughtiness scores were more likely to have elevations on all three scales. Prospective studies have shown that aggression at age 8 correlates significantly with P and E at age 26, and constructiveness correlated (negatively) with N over the same period. Aggression and hostility have been associated with P (Revell, 1995). Research on conditionability and crime indicates that offenders do condition more slowly than non-offenders (Raine, 1993).

Regarding its application to sex offenders, Eysenck (1987) provided E, P, and P profiles for different groups of offenders but perhaps reflecting the perception described above of sex offenders as specialists, and therefore different from other offenders, he did not address sex offenders, let alone child molesters.

4.1.3 Major Reviews on a Personality – Crime link

Several, now classic, reviews have been completed on the link between personality and crime: Schuessler & Cressey (1950), Waldo & Dinitz (1967), and Tennenbaum (1977). Schuessler & Cressey (1950) reviewed 113 studies and found 42% reported a difference between the personalities of offenders and non-offenders. The reviewers concluded that this does not support the hypothesis that personality and criminality are linked. 30 different personality measures were used in the studies however and only four of these were of sufficient quality to warrant continued use in the 1960s. Given the poor standing of the measures used Andrews & Bonta (1998) considered 42% as a quite impressive hit rate. Waldo & Dinitz (1967) reviewed 94 studies published between 1950 and 1965. Eighty one percent found a personality-criminality link although the reviewers reached a negative conclusion regarding the link between personality and crime. Tennenbaum (1977) reviewed 44 studies on personality and crime published between 1966 and 1975. 80% reported a personality-criminality link.

Across all three reviews assessments of antisocial personality, specifically the Socialization (So) scale of the California Personality Inventory (CPI), the Psychopathic deviate (Pd) scale of the Minnesota Multiphasic Personality Inventory (MMPI), and the Porteus Maze Test, consistently differentiated between offender and non-offender samples. It is notable that this latter test is a performance measure that among other things requires sustained concentration and lack of impulsivity. These scales are well constructed, have known correlations to theoretically relevant measures, and have been the subject of large amounts of research. The MMPI, particularly the Pd scale, significantly distinguishes between offender and non-offender samples 90% of the time. The CPI differentiated offenders and non-offender samples in 86% of studies (Andrews & Bonta, 1998). Scores on So and Pd are known to correlate with self-management skills, impulsivity, and other measures of deviance.

4.1.4 Risk Prediction and Personality

Growing attention has been given the task of identifying variables that provide an indication of risk of re-offending. In this regard considerable attention has been given to violent offenders. Researchers (e.g., Gendreau, Little, & Goggin, 1996) have found anti-social personality traits to be amongst the strong predictors of recidivism and describe the potential usefulness of the construct of psychopathy in predicting risk of violent re-offending.

Cleckley's (1941) classic text described psychopathy as a cluster of personality traits including lack of guilt, lack of anxiety, inability to learn from punishment, impoverished emotions, inability

to form lasting ties, egocentricity, and superficial charm. Hare incorporated the behavioural and personality aspects of Cleckley's list into his Psychopathy Checklist-Revised (PCL-R; Hare, 1985, 1991, 1996; Hart, Hare & Harpur, 1992), a 20-item checklist scored from interview, official records and corroborative checks.

Factor analyses of PCL-R items reveal two independent factors. Factor 1 deals with interpersonal and affective personality characteristics such as egocentrism, manipulateness, callousness, and lack of remorse. Factor 2 is related to criminality and measures features associated with an impulsive, antisocial, and unstable lifestyle, or social deviance (Harpur, Hare, & Hakstian, 1989). Related to the Big Five, there is some evidence that psychopathy is represented by low Agreeableness and low Conscientiousness (Widiger & Lynam, 1998).

The PCL-R is effective at predicting recidivism with violent offenders (Harris, Rice, & Cormier, 1989; Hart, Kropp & Hare, 1988; Serin, Peters, & Barbaree, 1990). A meta-analysis of studies using the PCL-R showed the high scorers on the instrument were three times more likely to commit further offences than those scoring low scores, and four times more likely to commit violent offences (Hemphill, Hare, & Wong, 1998).

Simourd, Bonta, Andrews, & Hoge (1991) undertook a meta-analysis of the predictive criterion values of three scales including the So and Pd scales of the MMPI, and the PCL-R. They found the predictive validity of each of the measures to be substantial. The mean correlation of Pd scores with criminal behaviours was .19. The mean predictive validity of the So and PCL-R were statistically indistinguishable from each other and varied between the range .34 and .39.

Simourd & Andrews (1994) found a mean r of 0.21 between major personality variables such as weak socialisation and psychopathy, and criminality (with a mean r of 0.38 in 90 studies) and a mean r of 0.12 for other personality variables such as below average intelligence. Gendreau, Little, & Goggin (1996) found a mean r of 0.18 for the prediction of adult criminal recidivism in 62 studies reporting personality variables.

From their own meta-analysis Andrews & Bonta (1998) concluded that the major correlates of criminal behaviour are based in personality. For them the negative conclusions of early reviewers in the face of strong evidence for an association between personality and criminality were examples of knowledge destruction (Andrews & Wormith, 1989). They concluded that research evidence has been "voluminous and overwhelmingly supportive (p. 46)" of personality

as a correlate of crime. Indeed in presenting their general personality and social psychology of criminal conduct they rank (on the basis of empirical evidence) temperamental and personality factors the third most major contributor to crime, behind anti-social and pro-criminal attitudes, and having pro-criminal associates and isolation from anti-criminal others. It is apparent that, having been nearly abandoned during the 1960s, 1970s and 1980s, the study of personality underwent a renaissance during the 1990s when its connection to re-offending began to be more fully appreciated.

The association between psychopathy and violent recidivism is not under question here. Rather, the issue is the extent to which psychopathy or other aspects of personality can contribute to risk assessment with sex offenders. There is some evidence that the prevalence of psychopathy is relatively high amongst convicted rapists (21%; Hare, 1996). This is consistent with views that rape can be understood as an offence of violence, as much as a sexual offence. Lalumière & Quinsey (1996) considered the relationship between sexual offending and psychopathy. They found variables indicating anti-sociality and psychopathy to be linked to mating effort and self-reported use of coercion. Variables indicating mating effort were also linked to sexual coercion but those indicating sexual deviance were not. They found psychopathy, sensation seeking, self-perceived mating success, and an extensive history of uncommitted sexual relationships to be the strongest risk indicators for sexual coercion. Quinsey, Rice, & Harris (1995) followed up 178 treated rapists and child molesters. They found psychopathy to be a good predictor of both violent and sexual recidivism.

The utility of psychopathy as a predictor of sexual recidivism is however limited by the low prevalence rates for psychopathy amongst child molesters. Child molesters have been found to score lower on measures of psychopathy than rapists (Harry, Pierson, & Kuznestov, 1993) and the incidence of psychopathy is lower amongst child molesters than other sex offenders (18.3% in a group of mixed offenders including child molesters, and 5.4% of incest offenders; Hare, 1996). It varies with the samples used however (e.g. 30.5% amongst child molesters in a treatment centre for sexually dangerous persons; Hare, 1996). Given these figures psychopathy as a construct begins to suffer the same limitations as the one-dimensional factors reviewed in chapter two in terms of its capacity to explain sexual offending against children. Considering psychopathy alone ignores other personality traits found in child molesters. In light of the earlier discussion on the need to incorporate multiple dimensions when assessing personality, the construct of psychopathy may be limited in its ability to account for the variability in the child molester population.

While static predictors (e.g. marital status, relationship to victim, previous criminal convictions, offence type) have strong empirical support in predicting sexual re-offending among child molesters and rapists they do not yield a complete picture of re-offence risk (Marques, Nelson, West, & Day, 1994). The present need in prediction research is the identification and evaluation of dynamic predictors, variables that can change over time e.g. situational variables, changes in mood and attitude and treatment induced changes such as skill acquisition (Quinsey, Harris, Rice, & Lalumiere, 1994). This points to the need for the literature on child molesters to adopt a broader view of personality than one limited to psychopathy.

1.4.5 Personality, Violent Offending, and Beyond

Beyond the construct of psychopathy other researchers have demonstrated links between personality and interpersonal violence (e.g. Greene, Coles, & Johnson, 1994). Blackburn (1989) argued that generalized attributes of the person contribute significantly to violence. He developed a personality-based typology originating from Megargee (1966) who posited that two dynamics of anger expression contribute to loss of anger control. Megargee initially, and perhaps simplistically, argued that offenders who committed extreme acts of violence (e.g. homicide) could be divided into "over-controlled" and "under-controlled" personality types. Undercontrolled offenders are those with weak inhibitions who regularly respond aggressively, and who are likely to be identified as psychopathic. Overcontrolled offenders have strong inhibitions and aggress only when anger arousal is sufficiently intense to overcome inhibitions. They aggress rarely but with strong, possibly homicidal, intensity.

Current cognitive models of aggression (noting the role of cognitive rehearsal and response biases to aggression) have outrun the energy or hydraulic model of aggression inherent in Megargee's model. Furthermore, it is evident that moderately controlled individuals also aggress. The overcontrolled- undercontrolled distinction is heuristically useful however and has led to a fruitful line of research in terms of typing offenders. Megargee (1966) found initial support for his model. Boys with a record of extreme assault were rated as more controlled and unaggressive and showed greater control and conventionality on personality tests than moderately assaultative and non-violent delinquents.

Blackburn's (1971) cluster analysis of MMPI profiles of male murderers in a British high security psychiatric hospital supported Megargee's hypothesis but, in an important finding, produced four clusters: two depicting over-controlled types and two depicting under-controlled types. Blackburn (1975) submitted MMPI profiles from psychopathic disordered male offenders from a British high

security psychiatric hospital to cluster analysis. He used twelve special scales to avoid the psychometric deficiencies of the regular scales. Four profile types again emerged.

The first Blackburn labelled "Primary Psychopaths" based on a previous description by Karpman (1948). MMPI scores indicated they were under-socialized, impulsive, aggressive, extra-punitive and relatively lacking in social anxiety or other subjective disturbance. The second type had MMPI profiles indicating high levels of anxiety, depression and social avoidance. They were more hostile, aggressive, impulsive and under-socialized than the Primary Psychopath group while displaying a proneness to guilt. They were referred to as "Secondary Psychopaths", again utilizing Karpman's terminology⁷. The third group produced uniformly low scores on all MMPI scales except L (Lie) and Ex (Extraversion) reflecting defensive denial of psychological problems and a high degree of control. They were subsequently labelled "Controlled". The fourth group was characterized by social shyness, introversion and depression with no notable aggression or impulsivity and were subsequently labelled "Inhibited".

These findings are robust, having been replicated across settings, offender groups, using different methods of clustering and based on differing psychometric tools. They were replicated in samples of male prisoners convicted of homicide (McGurk, 1978), prisoners incarcerated for violent offences (Henderson, 1982, 1984), other incarcerated offender populations (Holland and Holt, 1975, Widom, 1977, McGurk and McGurk, 1979, Blackburn, 1986; Weekes & Morison, 1993), and an outpatient offender population (Wales, 1995). Greene, Coles, & Johnson (1994) identified four similar groups amongst spouse batterers. Lastly McGurk and McGurk (1979) failed to reproduce the four-fold typology in non-offender subjects indicating that the typology may be distinctive to offender populations.

Henderson (1982, 1984) compared the four groups with respect to social skills and found meaningful differences between them. The Controlled group showed few social skills difficulties of any sort. The Disturbed/Hostile group (Secondary Psychopaths) and Inhibited groups showed generally poor social skills in a range of situations and were likely to be anxious, quiet and lacking confidence. The Extrovert/Hostile group (Primary Psychopaths) reported no general social difficulties but had problems with temper control. These results suggest that within the violent offender population there are differing needs and treatment requirements.

⁷ Blackburn (e.g., 1995a) has in fact questioned the appropriateness of these labels but has persevered through convention despite the potential for confusion with Hare's use of the term "psychopath", and various legal definitions of the term used across jurisdictions. I retain the terms, again out of convention.

Primary and secondary psychopaths have criminal convictions at an earlier age than the Controlled and Inhibited groups but primary psychopaths have the most convictions for assaultive crimes (Blackburn, 1975). Secondary psychopaths have been found to be the most deviant in terms of MMPI and Special Hospitals Assessment of Personality and Socialization (SHAPS; Blackburn, 1982; see Blackburn, 1993a, p34) profiles, and in terms of EEG abnormalities, emotional imagery measurements, intensity of anger, and low IQ (Blackburn, 1993a). Primary Psychopaths have been found to have the highest levels of autonomic arousal and highest levels of sensation seeking, Controlled subjects show denial of strong emotional reaction, Inhibited subjects demonstrate the greatest deficiencies in social skills (Blackburn, 1993a). Blackburn (1993a) compared the groups on a modified version of Novaco's Anger Scale. He found Secondary Psychopaths and Inhibited subjects to score most highly on this measure.

The groups have been distinguished in terms of offending. Primary Psychopaths are most likely to have a history of violent crimes, and Inhibited types the least. Primary Psychopaths and Secondary Psychopaths show a greater number of total previous convictions. Secondary Psychopaths are youngest at first conviction, have the most convictions and custodial sentences, and the highest number of convictions for property offences (Blackburn, 1993a). Secondary Psychopaths and Inhibited subjects are more likely to have committed a sexual offence (Blackburn, 1988).

Blackburn's distinction between primary and secondary psychopaths is seemingly at odds with that of Hare and others who consider psychopathy to be a distinct personality taxon. Porter (1996) agreed with Blackburn that a distinction can be made between primary and secondary psychopaths however. Andrews and Bonta (1998) considered that research with the PCL-R presents a confusing picture regarding psychopathy as a taxon. With scores on the tool falling between zero and forty, in what seems to be a *dimension*, "at what point does one become a psychopath?" they ask. This remains an excellent question. While it appears that the issue of whether psychopathy is a true taxon is yet to be resolved, the dimensional approach argued by Blackburn is consistent with the structure of personality that has emerged over the last two decades.

Two orthogonal factor dimensions, labelled "Psychopathy, Antisocial Aggression, or Hostility" and "Social Withdrawal or Sociability", have been shown to sufficiently reproduce Blackburn's typology (Blackburn, 1986). This is illustrated in Figure 1.3. The first factor is defined by impulsivity, aggression, hostility and negativity, and distinguishes between under-controlled and over-controlled offenders. The second factor is defined by shyness, social anxiety, and lack of self esteem and distinguishes between the *types* of under-controlled and over-controlled offenders i.e.

between Primary and Secondary Psychopaths at the positive pole of the Psychopathy or Antisocial aggression dimension and between Controlled and Inhibited subjects at the negative pole.

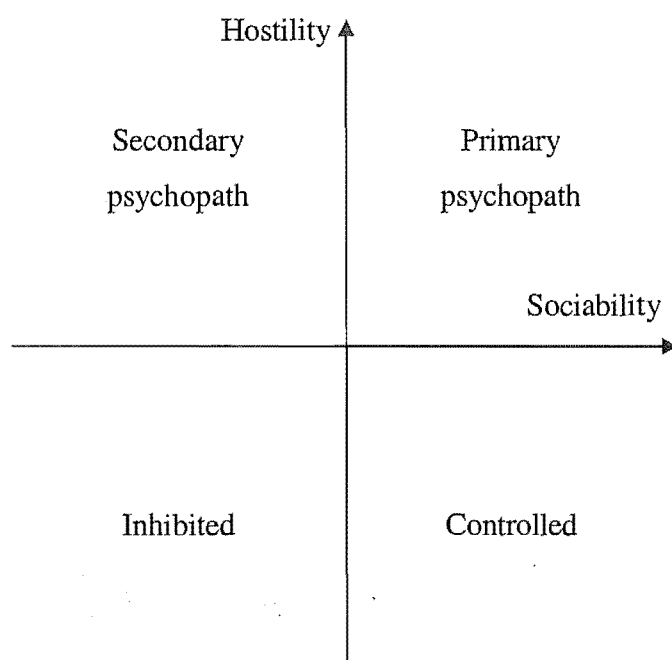


Figure 1.3 The location of Blackburn's four personality types in a two dimensional space

Blackburn's findings provide a link between offender types, based on personality measures, and the theoretically derived and empirically demonstrated interpersonal model of personality reviewed in Chapter 3. This is important for the current study. Recapping: the interpersonal circumplex introduced in Chapter 3 was described as being defined by the two dimensions of power or control (dominance versus submission) and affiliation (hostile versus friendly). As previously noted the selection of these axes is a matter of interpretation and convention rather than a mathematical necessity. Blackburn (e.g. 1993a) argued that the two-dimensional space used to account for the four groups is in fact a representation of the interpersonal circle.

Blackburn (1996) cluster analysed SHAPS scores of 136 Special Hospital patients and generated four clusters. Cluster 1 displayed high extraversion, impulsivity, moderate hostility and aggression, and low levels of anxiety and shyness. Blackburn considered this to be the Primary Psychopath group identified earlier. Cluster 2 was marked by hostility, impulsivity, aggression, and high levels of anxiety, shyness, tension, and mood lability, and corresponds to the profile of the Secondary Psychopath. The third cluster was defensive, controlled, and unaggressive, and reported low levels of shyness, anxiety, depression and tension. They closely reflect the Controlled group. Blackburn's fourth cluster was characterised by extreme introversion and

shyness, relatively low impulsivity and high levels of anxiety, hostility, depression and tension. Although displaying greater levels of both anxiety and hostility than the equivalent group identified previously, this cluster represents the Inhibited group.

Having identified these recognisable groups, Blackburn compared their mean base rate (BR) scores on the personality disorder scales of the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983) and found highly significant differences on all the scales. The Primary Psychopaths had the highest scores on the Narcissistic, Antisocial, and Histrionic scales, and the lowest scores on the Avoidant, Schizoid, Schizotypal, and Dependent scales, and scored relatively highly on the Paranoid scale. Secondary Psychopaths were characterised by high scores on the Passive Aggressive, Avoidant, Schizoid, and Paranoid scales, and scored lowest on the Compulsive scale. They matched the Primary Psychopaths' scores on the Antisocial scale. Controlled subjects exhibited few traits of personality disorder but had a peak score on the Compulsive scale and a score lower than other groups on the Passive-Aggressive scale. Inhibited subjects scored the highest of all the groups on the Avoidant, Schizoid, Dependent, and Schizotypal scales, and the lowest on the Histrionic, Narcissistic, and Antisocial scales.

Independent direct cluster analysis of MCMI scores supported a typology generating five clusters, three of which correspond to Primary Psychopath, Controlled, and Inhibited groups with two being variants of the Secondary Psychopath group. This study demonstrated that different groups of offenders, who can be defined in terms of two factors that define the interpersonal circumplex, and who have distinguishable offending profiles, can be further distinguished on the basis of scores of one test and display significant differences on another test. It provided support for the role of personality in differentiating offender types.

Blackburn (1998) tested the hypothesis that criminality is associated with the hostile dominant quadrant of the interpersonal circle. To do this he examined the relationship between levels of criminality and interpersonal style in two groups of forensic patients, one suffering from mental illnesses and the other not. Trained observers rated patients on a measure of the interpersonal circle (CIRCLE; Chart of Interpersonal Reactions In Closed Living Environments) from which scores on the dominance-submission and nurturance hostility dimensions were derived. In both groups offenders with higher levels of criminal convictions were more dominant than those with the lowest convictions. Blackburn concluded that higher rates of offending are associated with a more dominant and hostile interpersonal style. The results are consistent with an earlier study (Harpur, Hare and Hakstian, 1989) that found that PCL scores fall in the coercive-hostile area of

the interpersonal circumplex suggesting that psychopathy (in Hare's terms) may be broadly equated with the coercive-compliant axis of the interpersonal circle. Blackburn found however that the association is more consistent for general criminality than for specific types of offences. The implications of this for studying sex offenders is discussed in the final part of this section

From these studies it can be concluded that generalized attributes of the person *do* contribute significantly to offending (Blackburn, 1989). While traits may be weak predictors for specific situations they are able to summarize behaviour in the average. Without information about the typical characteristics a person brings to an offending encounter an analysis of that encounter is incomplete.

1.4.6 Personality and Sexual Offending Against Children

It is now time to return to the focus of this review: child molesters, and examine the impact of the recent developments in the personality field (reviewed in Chapter 3) and their application to offenders (reviewed above). Given the developments outlined above one would expect to see these applied in the sex offender field. However this has not occurred to the extent expected.

The construct of personality has been generally overlooked in current understandings of child sexual offending. Current volumes contain very little on the topic. Most reviews (e.g. Lanyon, 1986; Becker & Kaplan, 1990; Marshall, 1996) restrict themselves to a few paragraphs on MMPI-based studies and generally conclude (correctly) that the findings are confusing, inconsistent or unwarranted. Some commentators (e.g. Marshall, 1996) have pinned hopes on psychopathy having utility in the sex offender population but the very low base-rate for psychopathy in the child molester population limits its use in this group. Knight's (1989) child molester typology (MTC: CM3, axis II, decision 2) utilized the notion of interpersonal relationships between offender and child victim to distinguish interpersonally motivated offenders from those exclusively sexually motivated but this is largely limited to a labelling exercise which has not utilized the literature establishing connections between theories of personality and interpersonal style.

Unsurprisingly much of the research on personality with child molesters has searched for a classic personality profile for these men. By now it should be clear that the prospects of successfully revealing this are low. We know that on average child molesters are different from non-offenders in some respects related to personality. These were covered in Chapter 2. So, when Okami & Golberg (1992) reviewed the child molester literature related to personality they described the classical personality profile of the child molester as "passive, dependent,

unassertive, isolated, and awkward in interpersonal relations, anxious and depressed, below average intelligence, preoccupied with religious matters, ignorant and puritanical in regard to sex, narcissistic, high in feminine gender identity and over-identified with their mothers, psychosexually immature and displaying an aversion to adult females, the adult female body, and heterosexual intercourse; non-violent in behaviour and low in aggression generally”, (p. 306). For every child molester who fits this profile however there are many more who do not.

Attempts to determine the personality attributes of child molesters have generally drawn on one of the common personality measures. The most commonly used test in the assessment of sexual offenders is the Minnesota Multiphasic Personality Inventory (MMPI) (Kalichman, Shealy, & Craig, 1991).

Studies Using the Minnesota Multiphasic Personality Inventory

The MMPI consists of 550 true-false questions with ten scales assessing various areas of psychopathology and three validity scales. The scales are and their shortened titles are:

1	Hypochondriasis	Hs	6	Paranoia	Pa
2	Depression	D	7	Psychasthenia	Pt
3	Hysteria	Hy	8	Schizophrenia	Sc
4	Psychopathic Deviate	Pd	9	Hypomania	Ma
5	Masculinity-Femininity	Mf	0	Social Introversion	Si

Two validity scales assess subjects’ attempts to appear in a favourable light (L&K scales) and a third (F) measures the degree to which the subject is “faking bad” or not comprehending the items.

Given the volume of research using the MMPI the contribution made to knowledge of the personality of child molesters has been described as sparse (Levin & Stava, 1987), and the results confusing and inconsistent. Some studies have found differences between sex offenders and non-offenders on this measure (e.g. Kalichman, 1991; Panton, 1978, 1979) but these are often only marginally outside of normal limits (Marshall, 1996). Others have found no differences. The research has suffered from failing to specify sex and age of victim, degree of force, and criminal history of subjects (assuming current offences to represent the individual’s criminal history).

Early MMPI assessments of sex offenders were unsuccessful attempts to create scales specifically to detect sex offenders. Subsequent studies compared heterogeneous groups of sex offenders with

various control groups. Little or no differentiation was found between these groups and non-offender control groups or groups of other offenders (Knight, Rosenberg & Schneider, 1985). Consistent with other findings, research with the MMPI has not revealed a unique pattern of psychopathology amongst sex offenders. The only reliable finding in this literature has been that sexual offenders as a group more frequently display elevations on the Sc scale than non-offenders (Erickson, Luxenberg, Walbeck, & Seely, 1987; Levin & Strava, 1987). Even this finding has been inconsistent (Quinsey, Arnold, & Pruesse, 1980). The following studies illustrate research carried out with child molesters using the MMPI.

Two studies will be reported as illustrations of the discrepant findings amongst attempts to distinguish child molesters from non-offenders. Goeke & Boyer (1993) examined differences in the MMPI between incest offenders and non-offenders. The study did not find significant differences and concluded that the MMPI is a poor predictor of sexual deviance. Most other findings are consistent with this. Ridenour, Miller, Joy, & Dean (1997) on the other hand compared MMPI-2 scores of 91 child molesters with those of 90 non-offender males. Using a stepwise discriminant analysis this study found significant differences between the two groups ($\chi^2=98.73$, $p < .0001$). The study achieved an overall hit rate of 81.11% (83.3% of controls and 78.9% of child molesters were correctly classified) suggesting that the MMPI-2 may have some improved ability to distinguish between child molesters and controls although no other studies are known to have replicated this finding. More research is required using this version of the MMPI.

Other studies have compared child molesters with other sex offenders. Panton (1988) compared MMPI test results of 30 adult rapists, 20 child rapists (who overpower and/or threaten to harm their victims according to Groth, Hobson, & Gary, 1982) and 28 "non-violent" child molesters. He found no differences between the two rape samples but considerable mean MMPI scale differences between rapists and child molesters. The profiles for rapists implied aggravated hostility, resentment, social alienation, self-centredness, and the impulsive seeking of immediate gratification. By contrast the child molester profiles implied self-alienation, low self-esteem, self-doubt, insecurity and fear of heterosexual failure.

Much of this research has taken the average MMPI profile of subgroups of sex offenders and compared them on the basis of the two highest scoring scales (called two point codes). Evidence from these studies suggests the sex offender population is highly heterogeneous. Erickson, Luxenberg, Walbek, & Seely, (1987) for instance found that 43 of the 45 possible two point codes were present in their sample. Such studies show that elevations on both Scale 4 (Pd) and

Scale 2 (D) are more common among child molesters than among sex offenders with adult victims (Hall, Graham & Shepherd, 1991). On this basis the two point code would be 4-2 (or 2-4 depending on the order in which the average scale scores are ranked). There is also evidence that Scale 8 (Sc) is more prominent in the profiles of men who used force with children than those who do not (Levin & Strada, 1987). The 4-8 (or 8-4) two-point code, reflecting high scores on the Pd (Scale 4) and Sc (Scale 8) scales, has been a commonly found mean profile for samples of child molesters who use force and for sexual offenders against adults (Hall, Graham, Shepherd, 1991). Rapists and forceful pedophiles may be similar, with both groups showing the social alienation, chronic hostility, and peculiarities of thought regarded as typical of the 4-8/ 8-4 profile. The repeated salience of the Pd scale in sex offender profiles is perhaps not surprising. This scale was originally developed to identify psychopathic individuals. The 4-2 and 4-8 profiles are not unique to child molesters and forceful offenders and can be found in other offender populations.

Finally, some studies have used the MMPI to compare child molesters of differing types to varying success (Knight, Rosenberg, & Schneider, 1985). McCreary (1975) for instance compared child molesters with no previous arrests to those with one or more prior arrests and found that those with more prior arrests showed more psychopathology on the MMPI (significantly greater scores on Pd, Hs, Hy, and Sc scales) than those with no arrests. Panton (1979) on the other hand found no significant differences between incestuous and non-incestuous offenders. Hall (1989) moreover found no significant relationship between MMPI scores and offence characteristics (victim age, victim gender, incest/non-incest, rape/non rape, force/non-force).

Reporting mean profiles can give a false impression of the occurrence of the profile. Erickson, Luxenberg, Walbek, & Seely, (1987) for instance analysed MMPI profiles of a large group of child molesters. They found the 4-8 profile occurred only marginally more frequently (13%) amongst the child molesters they assessed than the generally more common 4-2 profile (12.6%). Hall, Maiuro, Vitaliano, & Proctor (1986) and Hall (1989) found similar results. Yanagida & Ching (1993) found that two thirds of their child molester sample were not characterised by any elevated clinical profile on the MMPI, supporting the view that the use of the MMPI in isolation may have limited utility in the prediction and identification of molesters. Quinsey's (1977) review concluded that there was little evidence to suggest the discriminative ability of the MMPI profiles of child molesters as compared to other sexual offenders.

This lack of discriminative ability may be due to a combination of causes. First, some of the problem may be a reflection of the test itself. Despite its name all the MMPI scales (except Si)

were intended as measures of psychopathology, not general personality, so studies comparing offender groups on this test have been criticised for using the wrong measure (Levin & Strada, 1987). Secondly, several authors (Erickson, Luxenberg, Walbek, & Seely, 1987; Hall, Maiuro, Vitaliano, & Proctor, 1986) argued that relying on univariate (single scale elevations and group comparisons based on single scales) or bivariate (two point codes) analyses, with inherently multivariate sets of data, lacks discriminatory power. Hall, Graham & Shepherd (1991) compared three techniques for developing taxonomies of sex offenders based on MMPI profiles. They found that reporting the overall mean 4-8 or 4-2 profile obscured within-group subtypes that emerge when procedures such as cluster analysis are used. This review will now consider studies that have used cluster analysis to examine the MMPI profiles of child molesters.

Duthie & McIvor (1990) cluster analysed the MMPIs of non-incarcerated child molesters and found eight subgroups. Three clusters had mean profiles within the normal limits. Cluster 4 was defined by elevation on D; Cluster 5 was defined by elevations on Pd and Mf; Cluster 6 had elevations on Hs, Hy, Pd, Pt, and Sc. Clusters 7 and 8 had profiles similar to subgroups found in the rape literature, one with elevations on Pd, Pa, and Sc scales, the other with several clinical elevations. Demographic and psychological correlates for each cluster were reported but the significance of differences between the clusters on these was not tested. Kalichman & Henderson (1991) sought to cross-validate these results by specifying an eight-cluster solution. They found similar groups characterised by elevations on the F scale accompanied by elevations on five or more clinical scales, a group with elevations on Pd and Hy scales, and a subgroup with no significant elevations.

Shealy, Kalichman, Henderson, Szymanowski, & McKee (1991) cluster analysed MMPIs of incarcerated child molesters and found four clusters. Like Duthie & McIvor they found a group with elevations on the F scale and Hs, D, Pd, and Pa scales. They also found a group with no significant elevations. They compared the clusters on a range of psychological measures. Cluster 1 had elevations on Pd and Ma scales, a profile common among people with antisocial personalities and impulsivity. This group was less likely to report thought disturbance, atypical sexual experiences, and affective distress. They showed the highest level of self-esteem. In these respects they are notably similar to rapists and nonsexual offending groups (Kalichman, 1990).

Cluster 2 was defined by a single moderate elevation on the Pa scale, and sub-clinical elevations on the Hs, D, Hy, and Pd scales, a profile that has been related to a tendency to harbour feelings of

resentment towards others, suspiciousness, guardedness, and sensitivity to the opinions of others. Like Cluster 1 this group reported relatively lower levels of psychological and sexual disturbance.

Cluster 3 was defined by elevation on the Pd, Pa, and Sc scales suggesting heightened levels of anger and hostility, and difficulties in judgement. A similar profile has been identified amongst violent offenders including murderers. Measures indicate this group experience high levels of disturbed sexual thoughts and sexual obsessions, high levels of anxiety and anger compared to the first two groups. Subjects in this group were more likely to victimise children who were strangers.

Cluster 4 showed the highest MMPI scale elevations with extremely elevated scores on F, Pa, Pt, and Sc. They were distinguished from the first two clusters by high levels on sexual disturbance scales, and showed high levels of anxiety and anger, and less anger control than the other subgroups.

Kalichman, Dwyer, Henderson & Hoffman (1992) used k-means clustering to analyse MMPI scores of non-incarcerated child molesters. They found five clusters, four of which cross-validated four of the groups found by Duthie & McIvor (1990) and Kalichman & Henderson (1991) but did not replicate any of the groups obtained by Shealy, *et al.* (1991).

Ridenour, Miller, Joy, & Dean (1997) cluster analysed MMPI-2 scores of the 91 child molesters in their study described above. A four-cluster solution resembling profile groups obtained earlier (Duthie & McIvor, 1990; Shealy *et al.*, 1991) was found. The first cluster was characterised by no clinical elevations on any scale but moderate elevations on the Pd and Ma scales. This corresponds with Shealy *et al.*'s Cluster 1. The second cluster had an elevated F score and significant elevations on Pd, Pa, Pt, Sc, and Ma scales. It corresponds with Shealy *et al.*'s (1991) Cluster 3. The third cluster was also characterised by a high F, and elevations on Pd, Pa, Pt and Sc scales. It corresponded well to Shealy *et al.*'s Cluster 4. The forth cluster was characterised by a sub-clinical elevation on Si. It differed from Shealy *et al.*'s Cluster 2, which is characterised by a single elevation but resembles a cluster found by Duthie & McIvor (1990).

Smith, Monastersky & Deisher (1987) cluster analysed MMPIs of 178 adolescent sex offenders. They found four clusters. Cluster 1 was described as shy, emotionally overcontrolled, and isolated. Cluster 2 was narcissistic, disturbed, insecure, and argumentative. Cluster 3 was outgoing, honest yet prone to violent outbursts. Cluster 4 was impulsive, mistrustful, and under-socialised. Worling (2001) replicated these groups using the California Personality Inventory and found a range of non-

test differences between the four clusters. Cluster 1 and Cluster 4 were of greater risk than the other clusters of committing subsequent violent and non-violent offences.

These studies demonstrate the utility of applying multivariate statistical methods to psychometric devices to identify meaningful subgroups amongst sex offenders despite known limitations of the test to assess actual personality variables. Although the studies utilise different populations, and different clustering techniques common groups appear to emerge. Some of these bear resemblance to the clusters that Blackburn has highlighted.

Recently the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983) has been increasingly used to assess offenders. The MCMI will be discussed in more detail below. It has proven popular amongst clinicians because it provides separate scales to measure clinical symptoms and personality traits, and these have been linked to the nomenclature of the DSM system. In this respect it provides a more direct assessment of personality attributes than the MMPI does. Early studies considered the psychometric utility of applying the test to sex offenders; later studies looked at the mean profile of the population, and then used techniques such as cluster analysis to identify sub-groups on the basis of test scores.

Studies using the Millon Clinical Multiaxial Inventory (MCMI)

Early studies using the MCMI were as concerned with testing the psychometric properties of the device as they were about understanding the population under investigation. Langevin, Lang, Reynolds, Wright, Garrels, Marchese, Handy, Pugh, & Frenzel (1988) assessed the test properties of the MCMI applied to sex offenders. They found that 19 of the 20 MCMI scales had alpha reliabilities over 0.60 and for 13 scales it was over 0.80. Four factors were extracted in principal axes factor analysis. The first factor was labelled General Psychopathology and was defined by loadings on the Schizoid, Avoidant, Aggressive, Schizotypal and Borderline personality scales. The second was labelled Psychotic Tendencies and had loadings on the Narcissistic, Antisocial and Paranoid scales. The third factor, labelled Extraversion, had loadings on the Histrionic and Narcissistic scales, and the fourth factor, labelled Bipolar Dependency / Antisocial Tendencies, had a loading on the Dependent scale.

Generally research with the MCMI has taken a similar path to that with the MMPI. Initial studies looked for common mean profiles amongst child molesters and compared this to other groups of offenders. Subsequent studies used multivariate analysis to locate sub-groups within the child molester population. The MCMI's personality scales offer a clearer impression of personality

characteristics than that provided by the MMPI but studies using the MCMI have remained largely descriptive with only one making reference to information beyond the scales themselves.

After establishing the applicability of the tool with sex offenders Reynolds *et al.* (1988) found that although sex offenders showed more personality pathology than other offenders the majority were not distinguishable from controls in terms of the personality scales. Barnett & McCormack (1988) considered the mean MCMI profile of 147 incarcerated child molesters. They found mean scores significantly elevated (>60) on two personality scales: Dependent and Compulsive. Chantry & Craig (1994a) compared MCMI scores of child molesters with those of adult rapists and non-sexually aggressive felons. The modal code for the child molesters was a one-point code that peaked on the Dependent personality scale. Child molesters had scores significantly higher than the other two groups on the Passive-Aggressive personality scale. Rapists and non-sexually aggressive felons had significantly higher scores than child molesters on Narcissistic, Compulsive, and Paranoid personality scales.

As with the MMPI, mean MCMI scores tend to mask heterogeneity within the population but very few MCMI studies have used multivariate analysis to examine this heterogeneity. Bard & Knight (1987) used cluster analysis to subtype MCMI profiles of a mixed group of child molesters and rapists. They obtained four clusters. The first, equally represented by child molesters and rapists, and labelled Detached, had high scores on Schizoid, Avoidant and Dependent personality scales. The second cluster, heavily composed of rapists, and labelled Antisocial Aggressive, had elevations on Narcissism, Antisocial and Histrionic scales. The third group, labelled Antisocial Negative, had elevations on Antisocial and Passive aggressive scales. Cluster four had sub-clinical elevations on Narcissism, Antisocial and Compulsive scales. While resembling clusters identified by Blackburn the inclusion of rapists and child molesters blurs the picture for each group.

Chantry & Craig (1994b) conducted separate cluster analyses on MCMI profiles of three groups: child molesters, rapists, and non-sexually aggressive felons. They obtained three cluster solutions for the child molester and rapist groups, and a two-cluster solution for the felons. Within the child molesters Cluster 1 had a sub-clinical profile Compulsive and Narcissistic scales mildly elevated. Cluster 2 showed elevations on Dependent, Passive Aggressive and Avoidant scales. Cluster 3 showed elevations on Dependent, Schizoid, and Avoidant. Although these three clusters resemble Blackburn's, a consideration of their utility was not provided by this study, that is, other than with respect to their MCMI scores no other comparisons were made between the three groups.

Lussier, Proulx, & McKibbin (2001) cluster analysed MCMI results of 42 sexual offenders including 23 rapists and 19 child molesters and considered non-test variables. Two clusters emerged. One, described as showing a dramatic profile, had higher scores on the Histrionic, Narcissistic and Compulsive scales. The second cluster, described as an anxious profile, exhibited higher scores on Schizoid, Avoidant, Passive-aggressive, Schizotypal, and Borderline scales. The two groups showed no differences on a range of demographic variables. The anxious group included more subjects with phallometrically measured deviant sexual preference and reported paraphilias. They were less likely to use adaptive strategies to cope with interpersonal conflict or manage deviant sexual fantasies, more likely to report experiencing loneliness, less likely to use approach strategies to deal with negative moods, and used avoidance strategies more often to deal with negative mood states than the dramatic group. The authors suggested these results indicate that the adaptive coping strategies used and reported by sex offenders as being most effective in coping with negative moods could be related to the usual coping strategies associated with their personality characteristics. More than any other reported above, this study hints at the potential for utilising a personality framework for interpreting the heterogeneity of the child molester population with respect to etiological and treatment related variables.

1.4.7 The Interpersonal Circle and Sexual Offending.

There has been no connection made between the groups identified by cluster analysis in sex offender populations and the clusters identified by Blackburn linked to the circumplex. One early study (Quinsey, Arnold, & Pruesse, 1980) tested Megargee's Over-controlled hostility hypothesis with offenders including child sex offenders but used univariate analyses. Analysis was restricted to comparisons of a measure of over-controlled hostility between offender groups, which was found not to predict differences between the groups. The authors concluded that the results may be interpreted as one more instance of the fruitless search for personality correlates of criminality.

Blackburn (1998) included patients convicted of sexual assault in his sample of forensic psychiatric patients whom he rated in terms of interpersonal style and criminal convictions. For the non-mentally ill offenders in the sample he found that sexual assault did fall into the hostile dominant quadrant of the interpersonal circle. It did not however correlate significantly with interpersonal style indicating, for Blackburn, the heterogeneity of offenders with high rates of convictions for these crimes. For mentally ill offenders Blackburn found sexual assaults to be associated with a more nurturant interpersonal style, possibly representing, in this group, clumsy attempts to attain intimacy rather than hostility towards victims. Blackburn concluded that a more detailed examination of types of assault and the identity of victims is required to clarify this.

1.5: Rationale for Present Research

“Through sexual involvement with a child the offender attempts to fulfil his psychological needs for recognition, acceptance, validation, mastery and control”

Groth, Hobson & Gary, 1982, p137

1.5.1 Introduction

Although authors acknowledge a likely association between offender characteristics and child sex offending (Marshall & Barbaree, 1990) attempts to integrate personality attributes into an understanding of sexual offending have tended to focus on particular aspects of personality, as the review in Chapter 2 illustrated. Application of personality as an overarching construct to sexual offending against children have generally been limited to univariate studies of the population giving a mean profile. Studies that have used multivariate analyses have often used mixed populations of offenders (rapists and child molesters) blurring the relevance to child molesters.

While attempts to distil a unique and identifiable personality type that commits sexual offences against children have not been successful (and are unlikely to succeed), the construct of personality has been used to account for the diversity of human behaviour that occurs in large populations. Application of personality constructs to the child molester population could offer a further means of understanding the diversity of this population.

In particular, there are broad associations between current understandings of sexual offending against children and views of personality that suggest that a more concerted application of personality constructs to an understanding of offending may be more successful than the approach taken in the existing literature.

Firstly, as was reported in Chapter 2, sexual offending against children is best considered to be etiologically determined by a range of factors (Marshall & Barbaree, 1989). Marshall & Barbaree (1990) suggested that "vulnerability factors" interact with more transient situational factors to determine sexual assault. Such vulnerability factors could clearly fall in the domain of personality factors, or at least be influenced by personality. Models of sexual offending against children have become increasingly sophisticated to accommodate its multiply-determined nature.

Ward & Hudson's (1998b) multiple pathway model of sexual offending, reviewed in Chapter 2, represents one of the most sophisticated models offered to date, receiving enthusiastic support. A strength of this model is its capacity to accommodate the diversity of the population, i.e. it

anticipates individual differences between offenders. Another strength is its theoretical roots in attachment theory, and the implications this has for differential treatment of offenders. Its key value however appears to be in the subtypes produced rather than the theory on which they are based. Attachment theory is a convenient launching point for a useful typology.

Secondly Blackburn's work, described in Chapter 4, succeeded in identifying meaningful subgroups of violent offenders on the basis of their personality profiles. Subgroups identified by their personality profiles have been found to vary in other meaningful ways. There is evidence that the typology offered by this approach can be applied to other groups of offenders. The theoretical background offered by the interpersonal approach to personality, and the empirical model offered by the circumplex, contribute to an understanding of the diversity of violent offenders.

Blackburn's interpersonal typology may be relevant to sexual offenders against children. The relevance of this research to child sex offending is evident when the coercive nature of both violent and sexual offending is considered along with the interpersonal context and the functions of these harmful behaviours (Blackburn, 1989). Like violence, sexual offending against children is axiomatically interpersonal, involving the assault of one person by another. The roles of relationships (Fisher & Howells, 1993) and social competence (Marshall & Barbaree, 1989) have long been acknowledged in understanding sexual offending against children. Marshall & Barbaree (1989) see social competence as etiologically significant as well as crucial to the maintenance of offending behaviour. As illustrated in Chapter 2 some offenders have been found to be socially anxious, to lack social skills, and to possess attitudes and modes of thinking about relationships which propel them further towards offending and away from legal or morally acceptable alternatives. They vary in the extent to which each of these factors influences their offending however. Each of these attributes can be accommodated under the models of personality presented in Chapter 3. The framework of interpersonal theory, with the concepts of reciprocity and complementarity, together with interpersonal schemas provides a rich conceptual arena in which to consider sexual offending against children.

Furthermore, theories of sexual offending against children have historically drawn upon notions of non-sexual motivation to partially account for sexual behaviour (Groth, Hobson, & Gary, 1982; Murphy, Haynes & Worley, 1991). Finkelhor (1984) for example argues that most sexual behaviour involves some nonsexual motivations - needs for affection, needs for confirmation of masculinity or femininity, needs for assertion of allegiance - "Sex is always in the service of other needs" (p. 34) he says, while Neubeck (1974, pp. 91-92) itemised "the myriad motives for sex".

Generally interpersonal theorists see interpersonal behaviour as guided towards the satisfaction of needs (e.g., Millon, 1981, 1990).

An interpersonal analysis of child sexual offending behaviour offers the opportunity to consider the extent to which such offending is a reflection of needs-satiation as expected in interpersonal theory. Conceivably, different offenders, distinguished in terms of interpersonal style, may be seeking to have very different needs met through the course of their offending. A better understanding of these differences between offenders could allow interventions to assist individuals to reduce their motivation to have these needs met and/or provide them with skills to meet needs in ways other than through sexual offending (e.g. Marshall, Laws, & Barbaree, 1990).

So, an application of personality constructs to sexual offending may offer a means of accounting for the diversity of the population who commit sexual offences against children. Drawing on personality to account for the diversity of offenders may offer a means of better accounting for the myriad motives that drive offenders and the many means they use to commit their offences.

1.5.2 The Current Studies

The current studies are an exploratory examination of interpersonal style in a sample of child molesters and a consideration of the extent to which this can account for the way they go about committing their offences. A series of four studies provides a sequential approach to this analysis.

First, in Study 1 cluster analysis will be used to identify sub-groups of child molesters based on their personality style (measured by the MCMI). Sub-groups identified will be compared with those reported in similar studies in the literature.

Next, in Study 2 a set of clusters selected from Study 1 will be compared on a range of factors reviewed in Chapter 2 that are known or hypothesised to be associated with sexual offending against children. Broadly following the structure of Chapter 2⁸ the study will compare the clusters on the basis of:

- i) childhood risk factors and precursors to offending
- ii) reported sexual preference and the content of sexual fantasies
- iii) social perception

⁸ Factors available for comparison are derived from the demographic and psychometric information gained routinely from child molesters at Kia Marama, the site of the study. Not all factors covered in Chapter 2 are assessed.

- iv) cognitive distortions
- v) self-esteem
- vi) loneliness social isolation and intimacy
- vii) emotional functioning
- viii) self perception

The clusters will also be compared on two other measures of personality (TPQ, PCL-R). Finally in this study the groups will be compared to each other in terms of the extent that they change on measures of the above factors from prior to treatment to following it.

The aim of Study 2 is still exploratory. It seeks to determine the extent to which an array of factors on which child molesters are assessed can be organised using the construct of personality. This step has relevance to clinicians who must routinely confront the task of interpreting such tests and applying them to a formulation of the case.

Study 3 is the first of two studies that compare the personality-derived groups on more direct measures of their offending behaviour. This study compares them on:

- i) a range of variables related to offence history
- ii) their assessed risk of further offending
- iii) their actual reconviction rates following the completion of a treatment programme and release from custody

Finally, in Study 4 the clusters obtained on Study 1 will be compared on behavioural and situational aspects of their actual offending as obtained from information on their police files. The aim of this study is to look beyond the summary data available in their offence history to independently gathered records of their activity prior to and at the time of their offending. As with Studies 2 and 3 this study considers whether personality-based groups can be distinguished on the basis of the way they go about setting up the circumstances for an offence to occur and the way they actually commit the sexual offence.

Part 2: The Present Research

2.1: Introduction to the Present Research

2.1.1 Setting

This research took place at the Kia Marama Special Treatment Unit for sexual offenders against children. Kia Marama is situated in a self-contained unit within Rolleston Prison operated by the New Zealand Department of Corrections. Only men convicted of sexual offences against children and engaged in the treatment programme are held in the unit. The unit consists of an accommodation area with 60 self-contained cells facing an interior quadrangle. Inmates have freedom of movement within the compound, encouraging social and therapeutic interchange.

Referrals to the programme are taken from other prisons in New Zealand but predominantly from the lower half of the North Island and the South Island. Attendance is voluntary. Offenders are generally scheduled to attend the nine-month programme close to their likely release date. Entry criteria are that the man has a history of sexual offences against children or young persons, he is not intellectually disabled or currently suffering from a psychotic disorder, has a medium or minimum security classification, and sufficient sentence length to complete the programme. These criteria are noted to be liberal compared to prominent overseas treatment programmes

The programme begins with a two-week assessment period culminating in a clinical formulation that guides customisation of the programme content to the individual. Assessment includes interviews regarding the man's offences, general life management skills, interpersonal goals and abilities to form and maintain intimate relationships, beliefs and attitudes about himself, his ability to regulate his affect, his capacity for empathy and perception of victim harm, his sense of responsibility for the offences, his views regarding sex and his use of pornography and intoxicants. All participants undergo plethysmographic assessment. Participants complete a series of 16 self-report scales covering the areas listed in the last section. The scales and phallometric assessment are repeated at the end of treatment.

The programme is group-based with limited individual therapy aimed at maintaining involvement in the programme. Group membership is closed (new participants cannot enter a group once it has started) and determined on the basis of release date. There are ten participants per group facilitated by one therapist. A Reintegration Co-ordinator oversees the release arrangements of participants, and a Maori cultural consultant assists therapists with cultural matters.

All participants undertake the standard programme, which runs for 31 weeks. Groups meet for three 2.5-hour sessions per week. Non-therapy time is spent engaged in homework assignments, therapy related activities, prison work or leisure. The programme consists of seven modules. Module 1, Norm Building runs for six sessions. It establishes the rules of conduct for the group and provides an overview of relapse prevention. Participants begin to disclose personal details in preparation for the next module. In Module 2, Understanding Your Offending participants develop their own "offence chain", a graphical representation of the cyclical progression of their offending, including cognitive, affective, and behavioural "links". Attitudes and beliefs contributing to the offending are identified and challenged.

The remainder of the programme is tailored to the issues and events that are identified on individuals' offence chains. Module 3, *Arousal Reconditioning*, introduces three reconditioning components: i) covert sensitisation, ii) direct masturbation, and iii) satiation procedures. Module 4, *Victim Impact and Empathy* examines the effects of sexual abuse on victims, through written, video and personal accounts of victims. Participants write an "autobiography" from their victim's point of view, and complete role-plays of encounters between them and their victims. Module 5, *Mood Management* introduces cognitive behavioural techniques for managing a range of negative mood states including depression, anger and anxiety. Module 6, *Relationship Skills* addresses aspects of social competency particularly intimate relationships. Although all aspects of the programme are influenced by relapse prevention, the final module, *Relapse Prevention*, ensures each participant has a thorough understanding of their high-risk situations, and the means to avoid or escape them.

Following the completion of the programme therapy staff prepare reports outlining treatment progress, risk of further offending, and release recommendations for the participants. Upon release offenders are required to attend appointments with an assigned Probation Officer and regular follow-up support meetings where their use of relapse prevention in the community is reviewed.

Bakker, Hudson, Wales, & Riley (1998) evaluated the programme comparing the reconviction rate of participants released from the programme for an average period of five years compared to a matched group of untreated sexual offenders against children. Using survival analysis they found the treated group to recidivate at a rate of 10% over this period compared to a recidivism rate of 22% for the non-treated control group.

2.1.2 Subjects

Subjects for the current studies were selected from 116 consecutive entrants into the Kia Marama programme between February 1993 and November 1995. 110 (94.8%) who produced valid MCMI profiles according to the criteria set in the manual (Millon, 1983) constitute the sample for the study. The average age for the sample was 41.5 years ($SD = 11.5$ years). 82 (74.5%) were of European ethnic origin, 25 (22.7%) were Maori, and 2 (1.8%) were Pacific people. The ethnic origin of one person was unknown. The sample was from a wide range of socio-economic backgrounds. Tables 2.1, 2.2, and 2.3 show the occupational status, income bracket and educational attainment at the time of arrest for the sample, respectively.

Table 2.1: Occupational status income bracket at time of arrest for the sample

Occupational status	N	(%)
Professional/ managerial	8	(7.3)
Other white collar / farming	8	(7.3)
Clerical /sales	7	(6.4)
Trades / skilled labour	44	(40)
Labourer / unskilled	26	(23.6)
Unemployed	8	(7.3)
Other beneficiary	7	(6.4)

Table 2.2: Income bracket at time of arrest for the sample

Income bracket (000)	N	(%)
< \$20	55	(50)
\$20- \$30	29	(26.4)
\$31 - \$40	15	(13.6)
> \$40	9	(8.2)

Table 2.3: Educational attainment at time of arrest for the sample

Educational level	N	(%)
Primary only	11	(10)
Form 3-4	41	(37.3)
Form 5	30	(26.3)
School certificate	6	(5.5)
Form 6	7	(6.4)
University Entrance	0	(0)
Form 7	3	(2.7)
Tertiary	12	(10.9)

The offenders in the sample were serving an average sentence length of 43.2 months (*SD* = 17.9) for a range of convictions as illustrated in Table 2.4.

Table 2.4: Current offences for which the sample are convicted (includes multiple convictions)

Current Offence	N	(%)
Indecent Assault	74	(67.3)
Sexual Violation/rape	28	(25.5)
Unlawful sexual connection/ intercourse	25	(22.7)
Incest	16	(14.5)
Sodomy/ Anal intercourse	15	(13.6)
Attempted sexual violation/rape	3	(2.7)
Assault with intent to rape	3	(2.7)

2.2: Study 1, Cluster Analysis of MCMI Profiles

2.2.1 Measure: The MCMI

The Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983) consists of 175 true false questions. It is intended to measure pervasive and enduring features of psychopathology distinguished in Millon's biopsychosocial theory (Millon, 1990) from those that are circumscribed and transient. Millon (1983) and McMahon (1993) describe the development of the MCMI.

The MCMI has eight scales measuring basic personality styles (Schizoid, Avoidant, Dependent, Histrionic, Narcissistic, Antisocial, Compulsive, Passive-Aggressive), three scales measuring severe personality disorders (Schizotypal, Borderline, Paranoid), and nine scales measuring clinical syndromes (Anxiety, Somatoform, Hypomania, Dysthymia, Alcohol abuse, Drug abuse, Thought disorder, Psychotic depression, Delusional disorder). Raw scores on the scales are transformed to base rate (BR) scores that are based on clinical prevalence rates. BR scores provide a basis for optimal differential diagnostic cut-off lines and attempt to ensure that the frequency of MCMI-generated diagnoses is comparable with representative clinical prevalence rates.

Ongoing revisions (MCMI-II, Millon, 1987; MCMI-III, Millon, Davis & Millon, 1997) have added personality patterns (Aggressive and Self-defeating) to align the MCMI with Millon's evolving theory, modified clinical syndrome names to align with DSM revisions, and added modifier indices (Disclosure, Desirability, and Debasement) to improve the psychometric quality.

The test, in its various versions, has been extensively reviewed (e.g. Craig & Weinberg, 1993; Wetzler, 1990) and has an extensive published literature reporting its application to clinical populations (Craig, 1995). A literature exists on the application of the MCMI to offender populations and many American forensic psychologists now favour it (Blackburn, 2000). Psychometrically, the test has internal consistency estimates for scales ranging from .81 to .94 (Chantry & Craig, 1994b). The scales have demonstrated stability with clinical and offender populations (stability coefficients for the scales show median values in the .60s and .70s with a variety of clinical groups; Chantry & Craig, 1994b). Langevin, Lang, Reynolds, Wright, Garrels, Marchese, Handy, Pugh, & Frenzel (1988) reported "impressive" alpha reliability measures (.61 - .95 across the personality scales) in a sex offender population. As expected the scales measuring personality showed greater stability than those assessing clinical syndromes.

The MCMI has a factor structure within offender populations that is the same as the factor structure of clinical populations (Chantry & Craig, 1994a). Four factors are consistently found (General maladjustment, Schizoid/ Asocial, Paranoid Behaviour and Thinking, and Submission/ Aggression). These factors emerge when all the scales are factored and also when clinical and personality scales are factored separately (Craig & Weinberg, 1993). The MCMI has been correlated with other scales. Correlations with MMPI scales have tended to be below 0.50. Correlations between the MCMI personality scales and MMPI scales have ranged from -.31 to .87 (Craig & Weinberg, 1993).

In developing the MCMI Millon opted for scale redundancy arguing that item overlap reflects the fact that constructs overlap. Thus approximately 89% of MCMI items contribute to two or more scales. This does not cause a problem with content validity however (Craig & Weinberg, 1993).

The extent to which the MCMI measures DSM Axis I and Axis II disorders has been the subject of much discussion (Craig & Weinberg, 1993). This issue is not central to the current study however. The present study utilises the MCMI as a measure of personality style rather than as a diagnostic tool to detect the presence or absence of a personality disorder or clinical syndrome. Given this focus on personality style the clinical syndrome scales have not been analysed.

2.2.2 Method

Subjects completed the MCMI as part of a standard battery of psychometric tests administered during the pre-treatment assessment phase of the Kia Marama programme. Group participants generally completed these in a group setting. The test was administered as per the manual guidelines. Base rates do not exist for New Zealand samples. Raw scores were transformed to base rate (BR) scores using the conversion tables in the manual. Responses of subjects of European descent were transformed using the White Male BR scores. Responses of Maori and Pacific subjects were scored with both the White and Black norms and the lower BR score of the two was selected for analysis. This conservative approach was used to avoid exaggerating pathology in these groups, given that the intention was to identify overall profiles of personality style rather than diagnosing the presence of personality disorders.

Descriptive statistics for the entire sample on each of the MCMI personality scales are reported in Table 2.5. An individual's MCMI results are conventionally presented in a graph illustrating a profile across each of the scales. The mean scores for the whole sample are graphed in Figure 2.1

Table 2.5 Mean, minimum, maximum and standard deviations of scores on MCMI personality scales for Kia Marama sample

MCMI Scale	Mean	Minimum	Maximum	Std Dev.
Schizoid	67.9	12	108	25.7
Avoidant	68.4	4	115	27.6
Dependent	70.1	4	110	27.8
Histrionic	47.3	3	94	23.6
Narcissistic	56.2	11	107	22.2
Anti-social	60.1	0	105	24.8
Compulsive	54.9	2	115	19.7
Pass-Agg	55.6	5	115	28.8
Schizotypal	57.7	0	104	16.3
Borderline	55.2	15	90	12.7
Paranoid	59.3	18	104	15.6

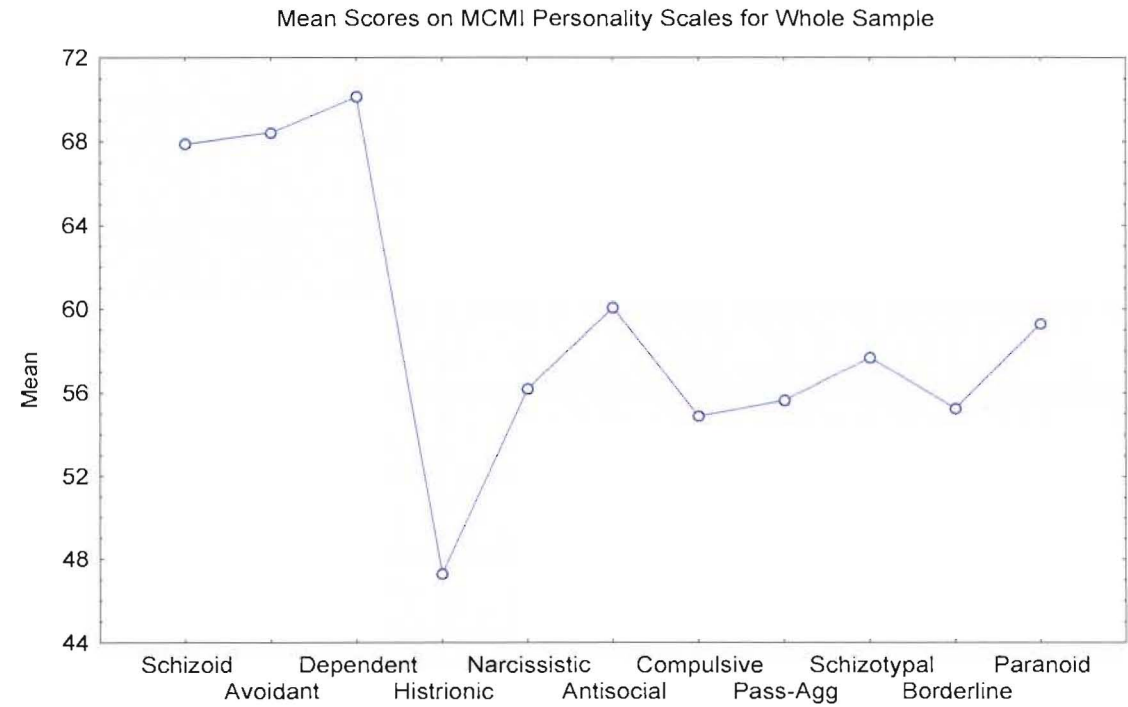


Figure 2.1. Mean BR scores for complete Kia Marama sample on the personality scales of the MCMI.

2.2.3 Analysis

Cluster analysis (CA) is used in exploratory research concerned with how to organise data into meaningful structures (taxonomies). The aim is to establish a set of clusters such that cases within a cluster are more similar to each other than they are to cases in other clusters. CA techniques may be hierarchical or non hierarchical. Hierarchical techniques can be *divisive*, beginning with one large cluster and gradually breaking it into smaller clusters, or *agglomerative*, which start with the individual sample members and progressively join them until one large cluster is ultimately formed. Non-hierarchical techniques are used where the number or character of clusters is known in advance. It is commonly recommended to use both techniques where possible.

Cluster membership relies on a measure of distance between two objects. A range of distance measures is used. Euclidean distances are an extension of the Pythagorean method of calculating the length of the hypotenuse of a triangle. The distance between two points in an n -dimensional space (where n is the number of variables used in the analysis) can be calculated using Pythagoras's theorem.

A range of clustering algorithms (the rules which govern between which points distances are measured to determine cluster membership) can be used in CA. Ward's (1963) method establishes cluster membership by calculating the total sum of squared deviations from the mean of a cluster. The criterion for joining is that it should produce the smallest possible increase in the error sum of squares. The combination of Ward's amalgamation method with Euclidean distance measures has been shown to be most effective at recovering true population memberships (Overall, Gibson, & Novy, 1993) and is commonly used in the analysis of psychometric data.

In the current study transformed BR scores on the eight personality and three pathological personality scales of the MCMI were subjected to CA using a range of PC-based software packages with varying utilities (Statistica, Statsoft, 1988; S-PLUS; SAS, SAS, 1990). The sample was tested with all other methods of CA available in the statistics packages including the non-hierarchical k -means analysis in which a predetermined number of clusters can be generated based on the greatest possible distance between cluster centres. Each hierarchical method produced generally similar hierarchies. Several individual subjects changed cluster membership across methods but essentially the clusters were similar regardless of the method used. Because of its noted superiority results generated using Ward's method and Euclidean distances are reported here.

Hierarchical Clustering Results

Figure 2.2 shows the agglomerative tree diagram of the sample generated using Ward’s method and Euclidean distances. In the first steps of the analysis (bottom of figure) individuals were linked to other individuals to form many initial clusters. With repeated iterations clusters are joined until finally two major clusters are linked to combine the entire sample of 110 individuals.

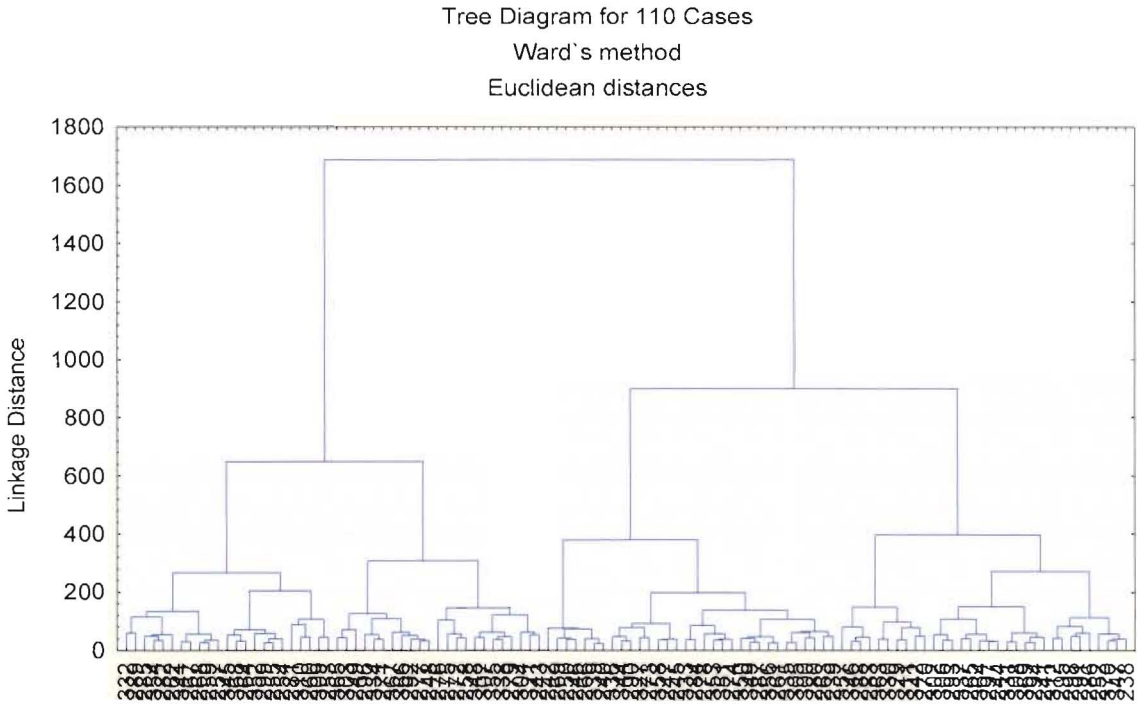


Figure 2.2 Tree diagram of 110 cases using Ward’s method and Euclidean distances.

The next issue considered in analysis was at what linkage distance did a natural or optimal set of clusters form. Consideration will now be given to the profiles of clusters at various stages. For the sake of simplicity the two cluster solution will be considered first. The formation of two large clusters is the penultimate stage before one large cluster consisting of all subjects is formed (the profile of this single cluster is of course that illustrated above in Figure 2.1).

Two-cluster solution

Table 2.6 shows the mean BR scores on each of the MCMI scales for the two clusters formed towards the top of Figure 2.2. Cluster 1, is represented by the cluster on the right hand side of Figure 2.2. These two profiles are graphed in Figure 2.3.

Table 2.6: Mean BR Scores on each MCMI scale for two clusters

MCMI Scale	Cluster	
	1	2
(Valid N	64	46)
Schizoid	85.2	43.8
Avoidant	85.9	44.1
Dependent	78.3	58.8
Histrionic	34.4	65.2
Narcissistic	46.5	69.7
Antisocial	58.4	62.3
Compulsive	50.2	61.3
Pass-Agg	66.1	41.0
Schizotypal	66.3	45.7
Borderline	58.9	50.2
Paranoid	61.0	57.0

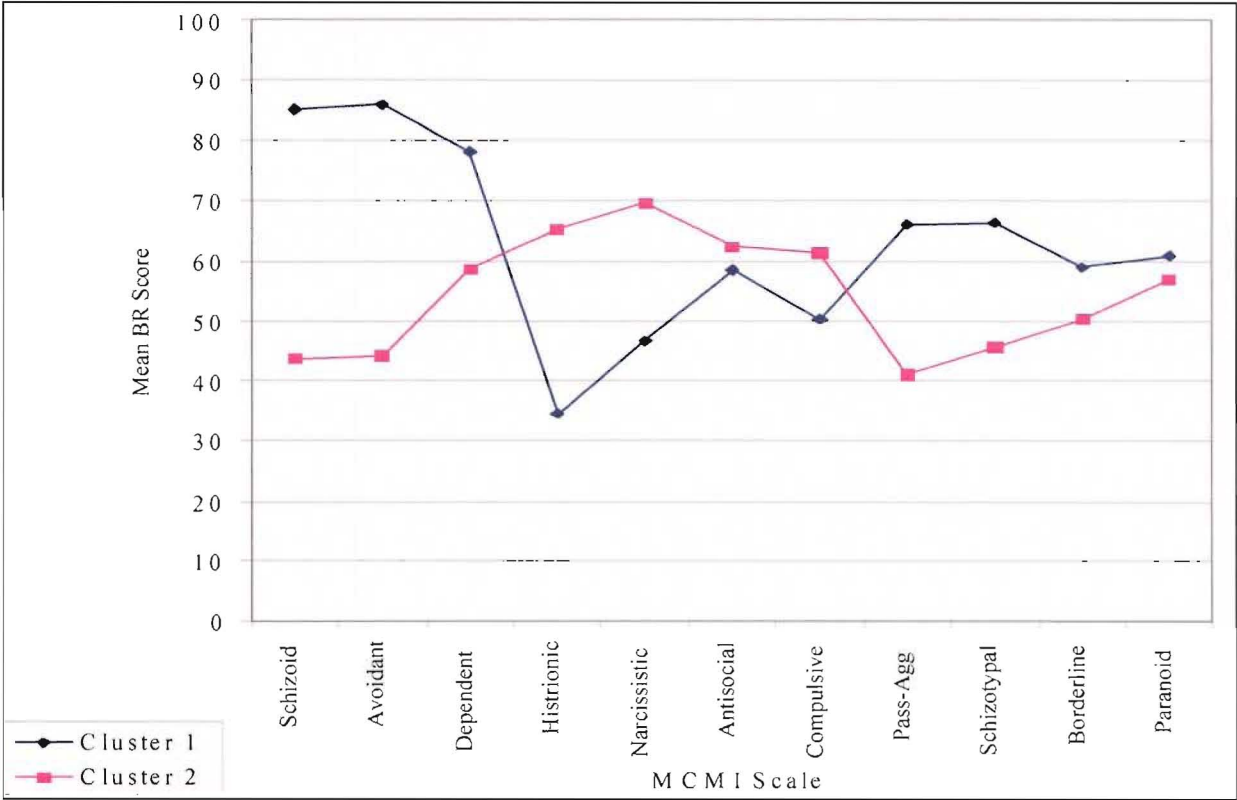


Figure 2.3: Mean BR Scores on each MCMI scale for two clusters

Cluster 1 resembles the overall profile of the child molester sample. Cluster analysis identified a reasonably sizable sample of offenders (Cluster 2) who displayed an almost antithetical profile.

According to Choca, Shanley, & Van Denerg (1992) individuals with a three point code peaking on Avoidant, Schizoid and Dependent scales, as in Cluster 1, are characterised by interpersonal apprehensiveness, a sense of inadequacy, and introversion. They have an over-riding concern with being liked and appreciated by others, but also fear rejection by these people. This may place them in a bind in which, by avoiding social interactions they feel comfortable and at ease, but worried about lack of support. If on the other hand they risk forming relationships their fear of rejection makes them tense, nervous and uncomfortable. A sense of inadequacy and insecurity may lead them to feel devalued and less capable than others. Because of this they may be cooperative to the point of submissiveness. Further, they may lack interest in personal feelings or interpersonal communications and may be unaware of their own emotions and remain aloof and detached, appearing to others as complacent, and apathetic. They are private individuals, often loners, who may have acquaintances rather than intimate relationships.

In contrast Cluster 2, with high scores on the Narcissistic, Histrionic and Antisocial scales is characterised as being confident, dramatic, and competitive. Members of this cluster may consider themselves special and superior to others, exaggerate their achievements and attributes, and manifest an air of conviction and self-assurance. They may be concerned with appearances but experience a need for approval and a striving to be conspicuous and attract attention from others. They may impress at first by an ability to express thoughts, a dramatic flair and a natural ability to draw attention. They may however be capricious and intolerant of frustration. They may experience short-lived emotions, become easily bored and move from one enterprise to another. They may view the world as a competitive place in which they have to be tough to fend for themselves. As a result they may be mistrustful and suspicious. They may view compassion and warmth as weak emotions that place them in inferior positions.

It is evident from Figure 2.2 that Cluster 1 is in fact an agglomeration of two smaller but significant clusters. Examination of the three-cluster solution, which emerges on Figure 2.2 at a linkage distance of approximately 700, is the next step in considering the make-up of this population.

Three cluster solution

The three clusters are evident at a linkage distance of approximately 700. The details of these clusters are reported in Table 2.7 and represented graphically in Figure 2.4. To preserve continuity the two clusters that merge to form Cluster 1 in the two-cluster solution are labelled Cluster 1-1 and 1-2.

Cluster 1-1, retained the characteristics of Cluster 1 described above, with high points on Schizoid, Avoidant and Dependent scales. In contrast Cluster 1-2 had high scores on Schizoid, Avoidant and Passive-Aggressive scales. This profile characterises people with introverted, avoidant and negativistic elements to their personality (Choca, Shanley, & Van Denergh, 1992). They have little interest in interpersonal matters and may be seen as emotionally insensitive, distant or apathetic. They may lack energy and enthusiasm and their thinking may be vague, unclear or impoverished. At times they may appear evasive and overly defended. Detachment from others may be accompanied by conflicts experienced in social situations where they feel inadequate and seek nurturance, shelter and guidance. Fear of rejection however may leave them nervous, moody, and resentful. Anger and dissatisfaction tend to colour their relationships. Cluster 2 in this analysis is the same as in the two-cluster analysis but it too can be reduced to sub clusters.

Table 2.7 Mean BR Scores on each MCMI scale for three clusters

MCMI Scale	Cluster		
	1-1	1-2	2
(Valid N	32	32	46)
Schizoid	85.7	84.7	43.8
Avoidant	86.0	85.8	44.1
Dependent	83.4	73.1	58.8
Histrionic	20.9	47.9	65.2
Narcissistic	31.6	61.4	69.7
Antisocial	40.2	76.7	62.3
Compulsive	61.1	39.3	61.3
Pass-Agg	51.4	80.8	41.0
Schizotypal	69.6	62.9	45.7
Borderline	59.8	57.9	50.2
Paranoid	53.2	68.8	57.0

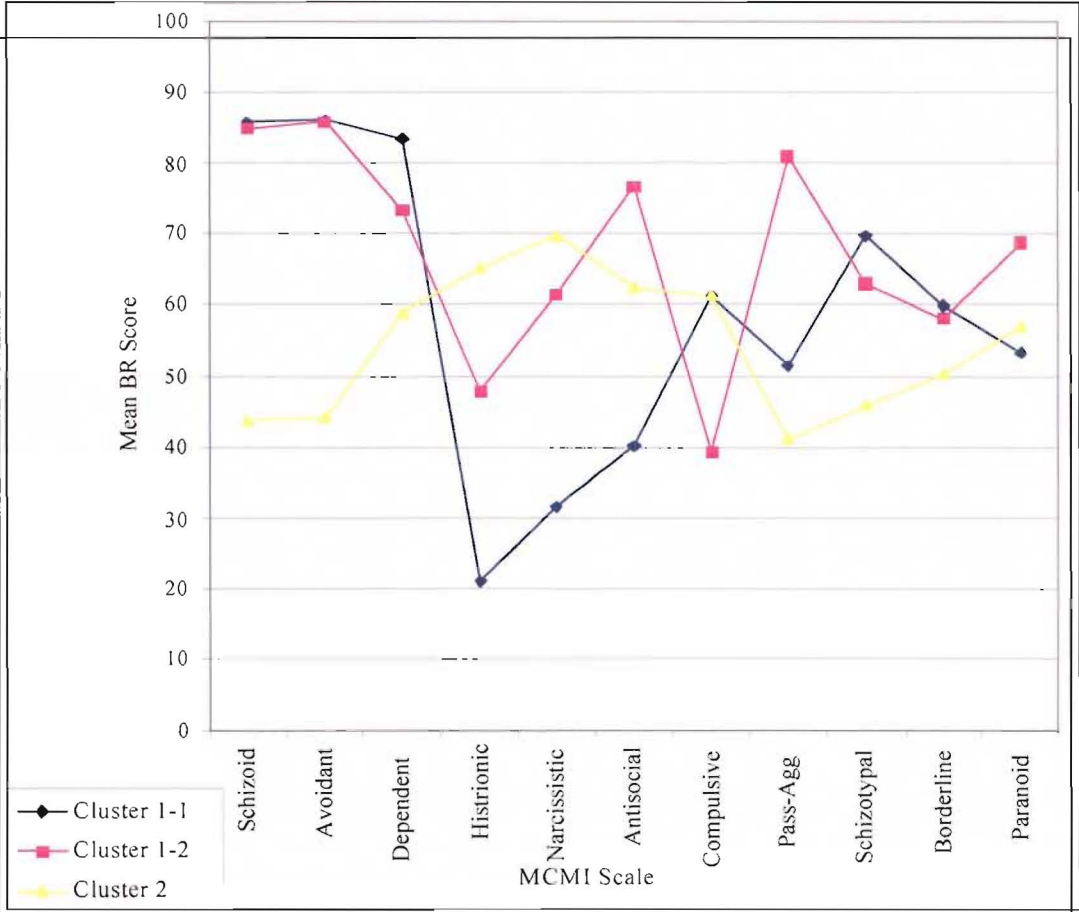


Figure 2.4: Mean BR Scores on each MCMI scale for three clusters

Four cluster solution

As with Cluster 1 it is evident that Cluster 2 (on the left hand side of the figure 2.2) is an agglomeration of two clusters that separates with a four-cluster solution. These are labelled 2-1 and 2-2 in Table 2.8 and Figure 2.5. Clusters 1-1 and 1-2 remain as they were in the three-cluster solution. Cluster 2-1 retains the same high score points as Cluster 2 but the scores are greater on each of these scales (by 4, 11, and 14 points respectively) indicating an exacerbation of the characteristics described of this profile above.

Cluster 2-2 emerges from Cluster 2 at this level as a new profile. The three highest scoring scales for this Cluster are Dependent, Compulsive and Histrionic. Choca, Shanley, & Van Deneg (1992) do not offer a description of this three point code but described the Dependent Compulsive profile as tending to have low self-esteem and an orderly disciplined nature. They may be humble, personable and capable of forming strong interpersonal relationships. They aim to be congenial so as to obtain needed support. As a result they may be compliant or submissive, avoiding

Table 2.8 Mean BR Scores on each MCMI scale for four clusters

MCMI Scale	Cluster			
	1-1	1-2	2-1	2-2
(Valid N	32	32	23	23)
Schizoid	85.7	84.7	37.4	50.1
Avoidant	86.0	85.8	34.5	53.7
Dependent	83.4	73.1	35.5	82.1
Histrionic	20.9	47.9	69.0	61.3
Narcissistic	31.6	61.4	80.3	59.0
Antisocial	40.2	76.7	76.1	48.6
Compulsive	61.1	39.3	55.4	67.3
Pass-Agg	51.4	80.8	46.7	35.4
Schizotypal	69.6	62.9	36.1	55.3
Borderline	59.8	57.9	45.4	55.0
Paranoid	53.2	68.8	60.8	53.1

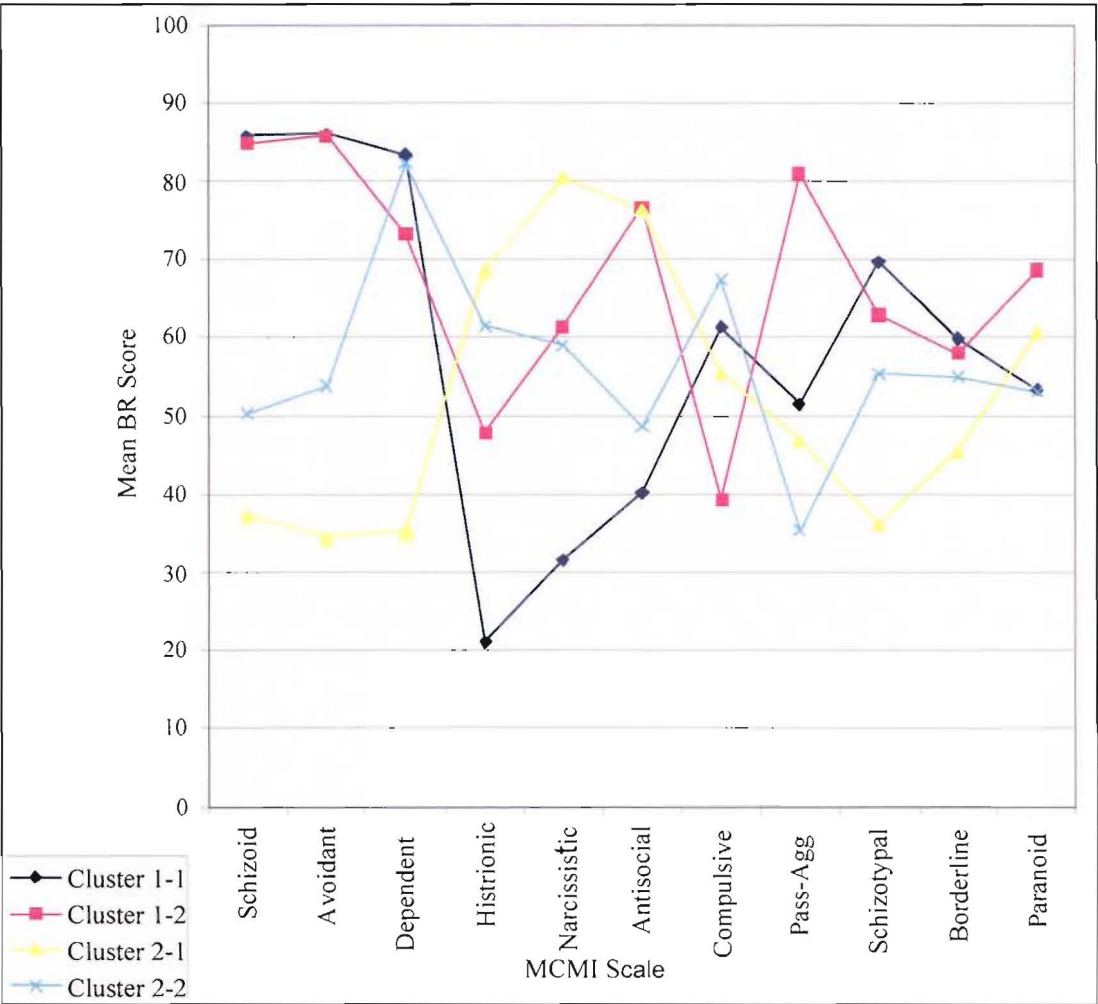


Figure 2.5: Mean BR Scores on each MCMI scale for four clusters

competitive situations in which they feel unsupported and vulnerable. As a result of their own self-doubt they may rely on the guidance and protection of others and seek to avoid making mistakes in anticipation of a positive outcome. They plan and prepare in a conscientious manner, and try to be efficient, dependable, industrious and persistent. They may relate to others in an overly respectful and ingratiating way. They may be perfectionistic and demanding but struggle to make decisions on their own.

Five Cluster Solution

The results of the five-cluster solution are reported in Table 2.9 and represented graphically in Figure 2.6. At this level two clusters that made up Cluster 1-1 at the four-cluster solution are separate and labelled Clusters 1-1-1 and 1-1-2. Essentially these are variants of the personality type described by Cluster 1-1. Cluster 1-1-2 had higher scores on the first three scales and was further differentiated by its high score on the passive aggressive scale meaning it will share some of the negativistic features of the members of Cluster 1-2. At this level the distinctions between sub-clusters become finer grained.

Table 2.9 Mean BR Scores on each MCMI scale for five clusters

MCMI Scale	Cluster				
	1-1-1	1-1-2	1-2	2-1	2-2
(Valid N	24	8	32	23	23)
Schizoid	83.0	93.6	84.7	37.4	50.1
Avoidant	80.8	101.6	85.8	34.5	53.7
Dependent	79.1	96.3	73.1	35.5	82.1
Histrionic	18.5	28.3	47.9	69.0	61.3
Narcissistic	35.2	20.9	61.4	80.3	59.0
Antisocial	45.7	23.8	76.7	76.1	48.6
Compulsive	66.0	46.5	39.3	55.4	67.3
Pass-Agg	38.6	89.6	80.8	46.7	35.4
Schizotypal	66.8	78.1	62.9	36.1	55.3
Borderline	54.9	74.5	57.9	45.4	55.0
Paranoid	54.9	48.0	68.8	60.8	53.1

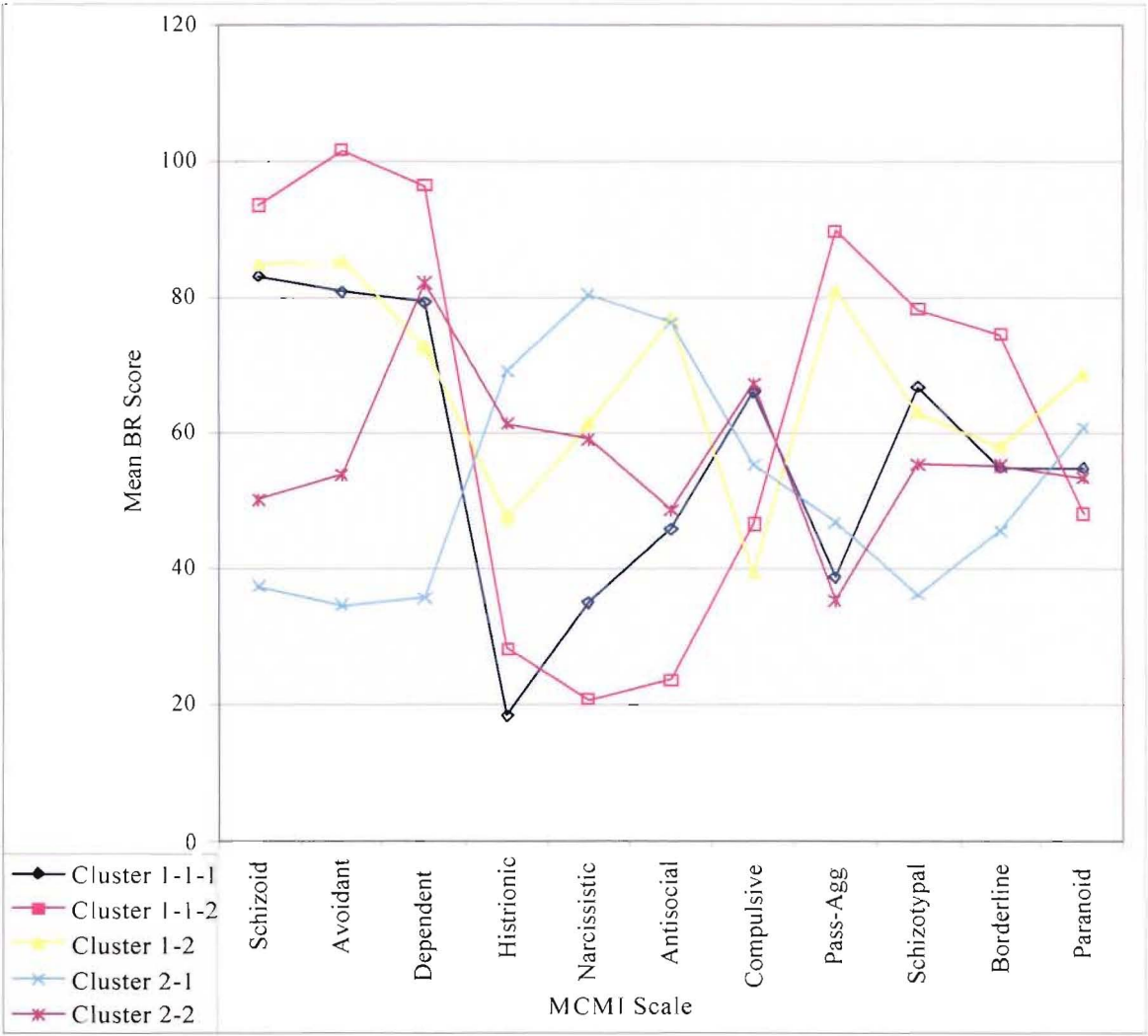


Figure 2.6: Mean BR Scores on each MCMI scale for five clusters

It is clearly possible to continue in this fashion uncovering further clusters that have agglomerated to form larger ones, until one’s analysis is at the point of considering the 110 individuals who make up this sample. A key issue to consider is at which point to rest this process with some confidence that one has selected a “natural” or “optimal” set of clusters.

Determining Optimal Cluster Number

There is limited consensus over the best means to determine an optimal number of clusters obtained using hierarchical analysis with some arguing that, given the exploratory intent of cluster analysis, this is not required. In some respects the method is not designed to determine an optimal number of sub-groups but to describe the way in which individual objects in a sample can be joined to produce groups of ever increasing size. One means commonly used to suggest a cut-off is to examine a graph of the amalgamation schedule showing the linkage distances at each successive

clustering step. Such a graph is provided in Figure 2.7 for the analysis used on the Kia Marama sample.

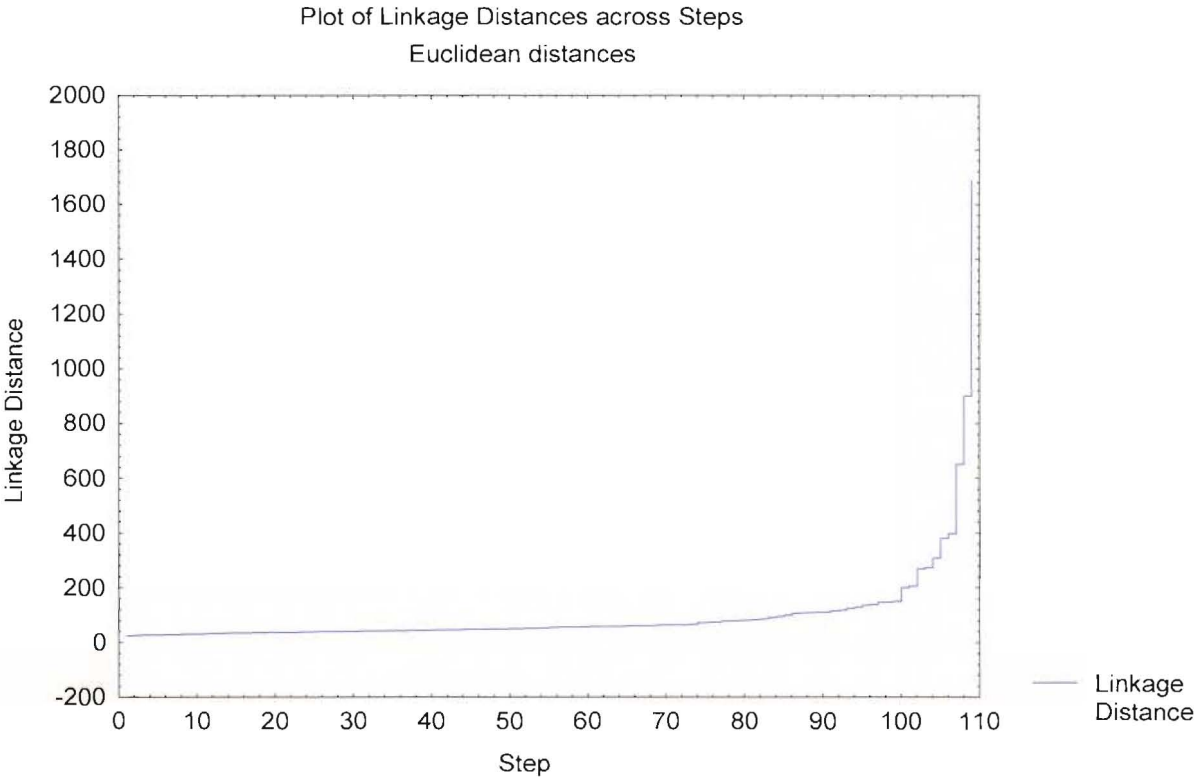


Figure 2.7 Plot of linkage (Euclidean) distances across steps

The Plot of Linkage Distances enables the identification of “plateaux” in the line, an indication that many clusters formed at essentially the same linkage distance, indicating a natural discontinuity in terms of distances between observed objects, and possibly an indication of optimal cut-off in terms of identifying natural clusters. The relatively smooth but gradually inclined line through to about step 90 indicates that many clusters were joined in the initial stages of the analysis. Apart from this no clear plateaux are evident however there is clear discontinuity of the process at about step 100 where the linkage distance approaches 200. Examination of the tree diagram (Figure 2.2) indicates that at a linkage distance of approximately 160 eleven clusters emerged from the cluttered gatherings of small groups. At a distance of 240 this reduces to nine clusters. It reduces to six clusters at 320, four at 400, three at 680 and two at 920. All the unique individuals are finally unified into one cluster at 1660.

Four statistics have been commonly utilised in the process of identifying clusters (Sarle, 1983): the Approximate Overall R-Squared (R^2), the Pseudo-F statistic, the Cubic Clustering Criterion (CCC), and the Pseudo- t^2 statistic. These statistics are reported for the last 22 generations of the hierarchical clustering process in Table 2.10. They are graphically presented in Figure 2.8.

Table 2.10: R^2 , Pseudo-F, Cubic Clustering Criterion, and Pseudo- t^2 statistics for the final 22 generations of hierarchical clustering

N Clusters	R^2	Pseudo F	CCC	Pseudo t^2
1	0.00		0.00	42.41
2	0.28	42.41	-2.14	25.60
3	0.40	35.92	-3.77	17.41
4	0.49	33.83	-3.40	12.86
5	0.54	30.64	-3.14	13.85
6	0.58	28.50	-2.83	9.02
7	0.61	27.17	-2.77	7.87
8	0.64	26.08	-2.34	8.57
9	0.67	25.29	-1.91	7.11
10	0.69	24.20	-1.78	6.83
11	0.70	23.34	-1.63	6.23
12	0.72	22.40	-1.62	3.58
13	0.73	21.63	-1.59	3.99
14	0.74	20.87	-1.61	4.46
15	0.75	20.26	-1.60	3.84
16	0.76	19.74	-1.56	4.82
17	0.77	19.34	-1.47	4.56
18	0.78	18.98	-1.40	3.62
19	0.79	18.62	-1.36	5.88
20	0.79	18.32	-1.29	2.53
21	0.80	18.08	-1.21	3.88
22	0.81	17.84	-1.15	4.06

So that they can be examined on the same axes the R^2 statistic has been multiplied by 100 and the CCC statistic has been multiplied by -10. R^2 , which provides a measure of the proportion of variance accounted for by the clusters, continued to increase with the number of clusters. The four cluster solution accounted for nearly 50% of the variance. Table 2.11 indicates the increment in R^2 as cluster numbers increase. Figure 2.9 shows the increments in R^2 , expressed logarithmically. The graph shows a discontinuity in the patterns on increments following the four-cluster solution.

Relatively large values of Pseudo-F can be used to indicate a stopping point in the clustering process. Returning to Table 2.10, Pseudo-F scores continued to increase as clusters agglomerated with a maximum score occurring at the 2-cluster solution. Values of the cubic clustering criterion greater than 2 or 3 can indicate good clusters; values between 0 and 2 indicate potential clusters, large negative values can indicate outliers. According to these criteria all solutions are outliers. Finally pseudo r^2 can be used to identify the best number of clusters by identifying the first value markedly larger than the previous value and move back up the column by one cluster. Using this rule, and observing Figure 2.8 there is a clear increase on this score at the five-cluster solution. By this rule then, the four-cluster solution is supported.

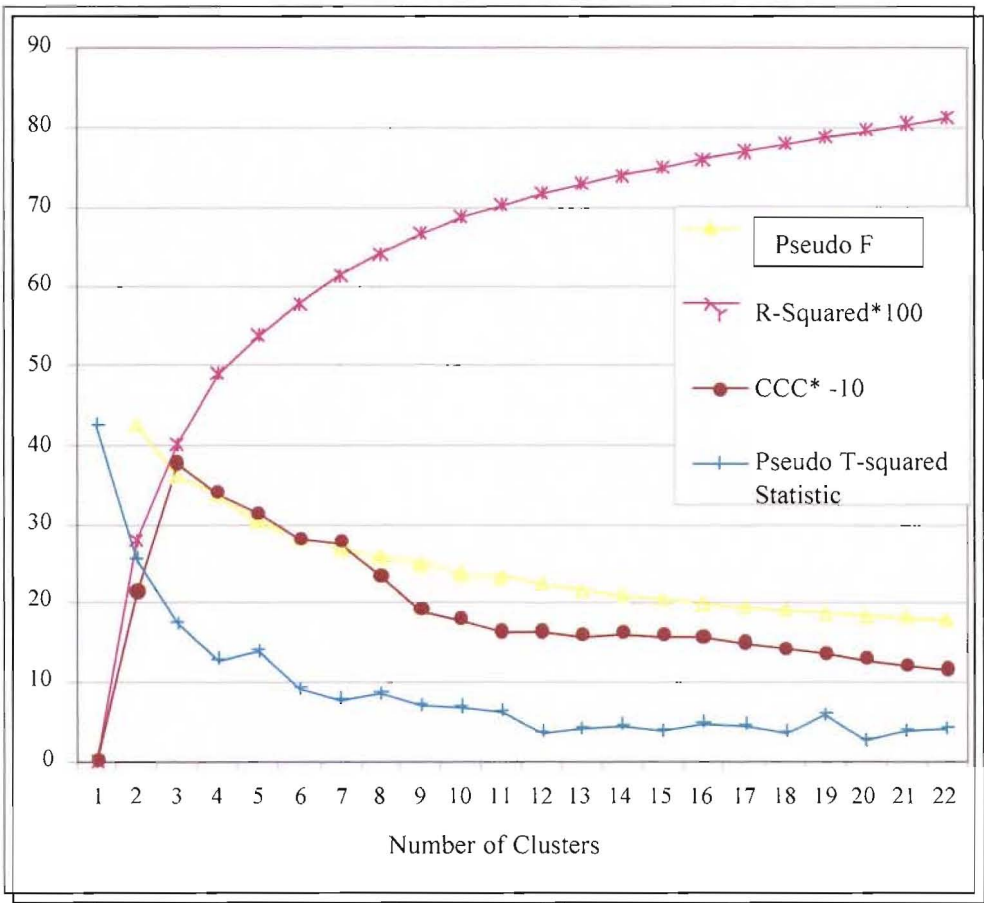


Figure 2.8: R^2 (x 100), Pseudo-F, Cubic Clustering Criterion (x -10), and Pseudo- r^2 statistics for the final 22 generations of hierarchical clustering

Table 2.11: Increments in R^2 for the final 22 generations of hierarchical clustering

N Clusters	R^2	Increment	N Clusters (cont.)	R^2 (cont.)	Increment (cont.)
1	0.00		12	0.72	0.01
2	0.28	0.28	13	0.73	0.01
3	0.40	0.12	14	0.74	0.01
4	0.49	0.09	15	0.75	0.01
5	0.54	0.05	16	0.76	0.01
6	0.58	0.04	17	0.77	0.01
7	0.61	0.03	18	0.78	0.01
8	0.64	0.03	19	0.79	0.01
9	0.67	0.03	20	0.79	0.01
10	0.69	0.02	21	0.80	0.01
11	0.70	0.02			

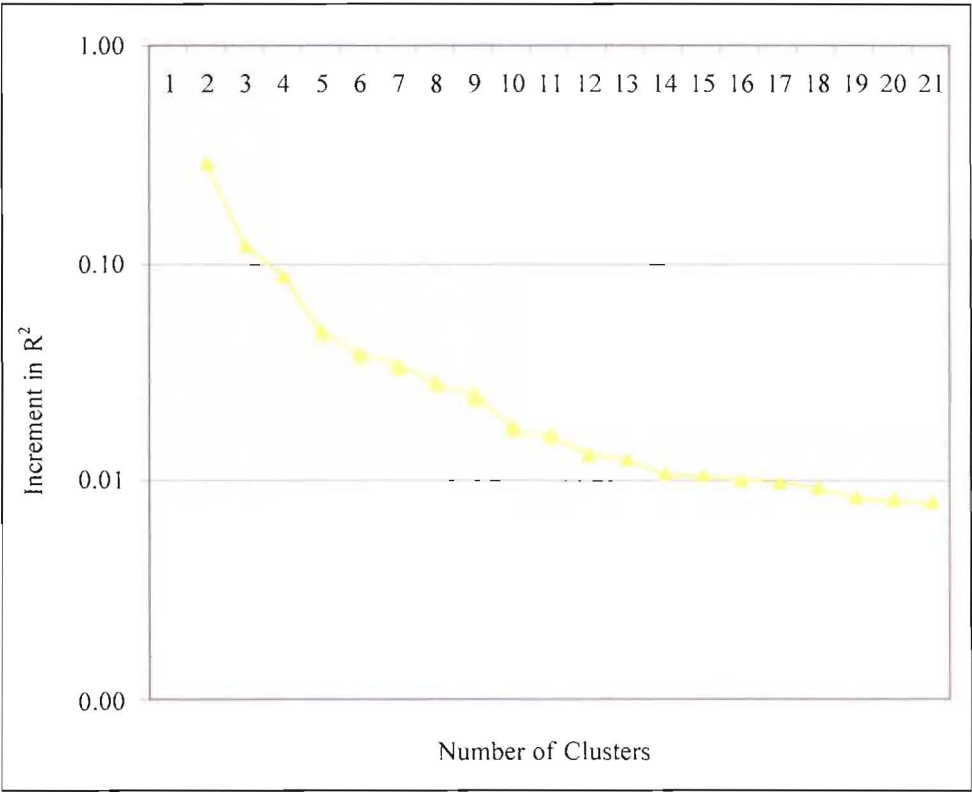


Figure 2.9: Logarithmic increments in R^2 with cluster numbers

2.2.4 Discussion

Texts on cluster analysis generally conclude their review of statistical processes for identifying clusters with a cautionary note regarding the limitations of each of the statistics presented above. The common recommendation is that decisions regarding the optimal number of clusters should be determined by employing the statistics presented together with experience and knowledge of the field being considered. On the basis of the four statistics arguments could be made for the 2, 3, 4 and 5 cluster solutions. Table 2.12 indicates support for the cluster solutions using the statistics.

Table 2.12: Cluster solutions meeting the statistical criteria for best fit

N Clusters	R^2	Pseudo F	CCC	Pseudo t^2
2	No	Yes	Yes	No
3	No	Yes	Yes	No
4	Yes	Yes	Yes	Yes
5	Yes	Yes	Yes	No

I need now to return to the studies reviewed in Chapter 5 of the Introduction. For convenience the results of studies using cluster analysis of personality questionnaires with or including child molesters are summarised in Table 2.13. The table shows ranges of cluster results, measures and statistical criteria. It is notable that those few studies that employed one of the recommended statistics tended to produce four or five clusters.

On the strength of the statistical evidence summarised in Table 2.12, a consideration of previous findings with child molesters summarised in Table 2.13, and bearing in mind the results of Blackburn and others with a range of offender types a four cluster solution will be selected for further analysis in the present study. In doing so it is fully apparent that these four clusters are made up of smaller clusters that may in their own right be worthy of comparison. It is also known the four clusters collapse into two larger clusters, one by one, and that the three cluster and two cluster solutions may also be worthy of future analysis. It should also be recalled that an intention of this study is to use multivariate analysis to uncover complexities of the population that simple bifurcations of the population disguise. The four-cluster solution seems a reasonable level to attempt this at, being neither overly simplistic nor so complicated as to lose comprehensibility.

Table 2.13 Summary of studies using cluster analysis of personality tests applied to child molesters

Study	Population	Test	Statistical criterion used	Clusters
Smith, Monastersky, & Deisher (1987)	Adolescent sex offenders	MMPI	Not specified	4
Duthie & McIvor (1990)	Non-incarcerated child molesters	MMPI	K means aimed to produce as many clusters as possible with minimum of 6 subjects in each	8
Shealy, Kalichman, Henderson, Szymanowski, & McKee (1991).	Incarcerated child molesters	MMPI	CCC and pseudo-F	4
Kalichman, Dwyer, Henderson & Hoffman (1992)	Non-incarcerated child molesters	MMPI	CCC and R^2	5
Ridenour, Miller, Joy & Dean (1997)	Child molesters	MMPI I	Not specified	4
Worling (2001)	Adolescent sex offenders	CPI	Inspection of scree plots	4
Bard & Knight (1987)	Rapists, child molesters & miscellaneous sex offenders	MCMI	Not specified	4
Chantry & Craig (1994b)	Child molesters	MCMI	Researcher determined on basis of viewing amalgamation diagram	3
Lussier, Proulx, & McKibbin (2001)	Rapists & child molesters	MCMI	k-means	2

2.2.5 K-means Clustering

Once an optimal number of clusters have been obtained many studies re-analyse their sample using k-means clustering to assign all the subjects to the number of clusters deemed optimal. The benefit of using k-means clustering is that it will produce exactly k different clusters of greatest possible distinction. The programme starts with k random clusters and then moves objects (subjects in the present study) between those clusters with the aim of minimising variability within clusters and maximising variability between clusters.

The 110 subjects in the present study were assigned to four clusters using k-means cluster analysis. Euclidean distances between the four clusters are recorded below the diagonal and squared distances above the diagonal in Table 2.14. Table 2.15 shows Analysis of Variance for each of the variables used in the cluster analysis. The four clusters produced using k-means analysis are presented in Table 2.16 by the mean (and standard deviation) on each of the MCMI personality scales. These means for each cluster on each on the MCMI personality scales are depicted in Figure2-10.

Table 2.14: Euclidean distances between four clusters derived from k-means cluster analysis

Cluster	Cluster			
	1	2	3	4
1		9775.480	7150.833	5111.90
2	98.87103		6031.548	18273.88
3	84.56260	77.663		6429.61
4	71.49754	135.181	80.185	

Table 2.15: Analysis of Variance for each of the MCMI scales used in the k-means cluster analysis

MCMI scale	Between SS	df	Within SS	df	F	p
Schizoid	51711.69	3	20006.52	106	91.32	.0000
Avoidant	58919.25	3	24263.16	106	85.80	.0000
Dependant	31730.50	3	52513.71	106	21.34	.0000
Histrionic	31966.07	3	28884.20	106	39.10	.0000
Narcissistic	33591.97	3	20057.74	106	59.17	.0000
Antisocial	33267.95	3	33915.47	106	34.65	.0000
Compulsive	16392.89	3	25926.78	106	22.34	.0000
Pass-Agg	47168.00	3	43509.96	106	38.30	.0000
Schizotypal	16391.96	3	12524.59	106	46.24	.0000
Borderline	3291.86	3	14158.00	106	8.21	.0001
Paranoid	3570.26	3	23058.84	106	5.47	.0015

Table 2.16: Mean scores (and standard deviations) on each of the MCMI scales for each of the four clusters derived from k-means clustering

MCMI Scale	Clusters			
	1 (N=38)	2 (N=19)	3 (N=27)	4 (N=26)
Schizoid	83 (11.6)	30 (12.6)	54 (18.3)	88 (11.7)
Avoidant	84 (12.4)	32 (17.5)	49 (18.1)	92 (13.5)
Dependent	68 (27.6)	36 (19.1)	81 (17.3)	85 (20.1)
Histrionic	50 (20.3)	72 (8.9)	51 (16.3)	20 (14.7)
Narcissistic	64 (15.7)	80 (12.2)	56 (14.0)	28 (11.2)
Anti-social	77 (12.4)	76 (16.9)	46 (20.1)	39 (22.4)
Compulsive	40 (16.6)	55 (16.6)	72 (15.2)	58 (13.8)
Pass-Agg	79 (17.8)	44 (20.7)	27 (15.1)	59 (26.9)
Schizotypal	61 (9.0)	34 (14.3)	56 (10.5)	72 (10.9)
Borderline	58 (10.6)	44 (12.8)	54 (10.4)	61 (13.0)
Paranoid	67 (16.6)	58 (15.1)	56 (14.6)	52 (11.5)

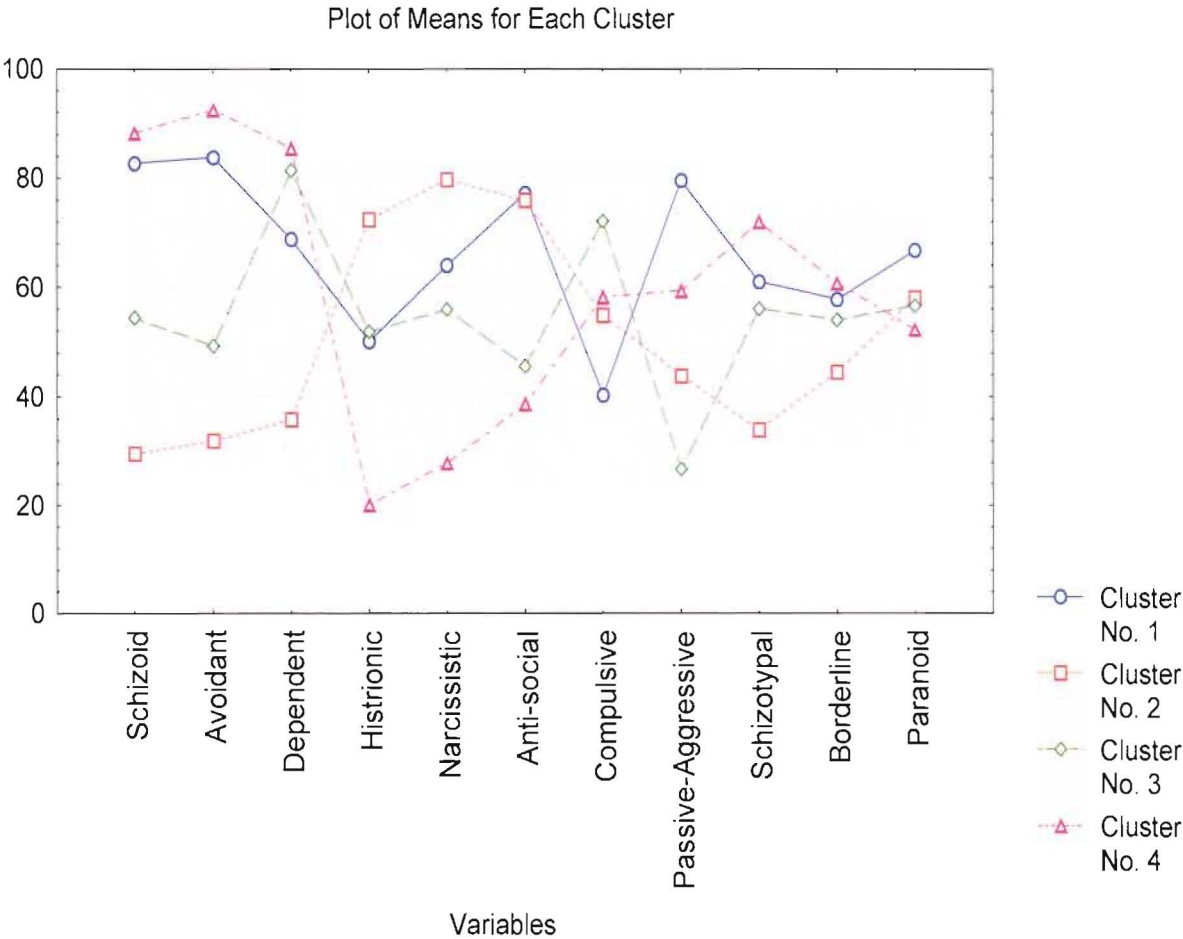


Figure2-10: Means for the four clusters derived from k-means cluster analysis on each MCMI personality scale.

Scrutiny of Table 2.14 and Figure 2.10, and comparison of these with Table 2.9 and Figure 2.6 in which the four cluster solution using hierarchical cluster analysis are presented, suggests that Cluster 1 produced by k-mean is comparable with Cluster 1-2 obtained hierarchically. Cluster 2 is comparable to Cluster 2-1, Cluster 3 to Cluster 2-2, and Cluster 4 to Cluster 1-1.

Cluster 1 is characterised by high scores on the Schizoid, Avoidant, Passive Aggressive and Antisocial scales. Cluster 2 is characterised by high scores on the Histrionic, Narcissistic, and Antisocial scales and very low scores on the Schizoid, Avoidant, Dependent, and Schizotypal scales. Cluster 3 is characterised by high scores on the Dependent and Compulsive scales. Cluster 4 is characterised by high scores on Schizoid, Avoidant, Dependent and Schizotypal scales and very low scores on the Histrionic, Narcissistic, and Antisocial scales. The clinical descriptions of individuals who possess this profile are the same as those described above for the four-cluster solution obtained by the hierarchical method.

2.2.6 Psychometric Validation of the Four Clusters

A level of validation of the four clusters can be obtained by comparing them to results of previous studies. A number of earlier studies used the MCMI to uncover subgroups of offenders. Cluster 2 in the present study is similar to Group II reported by Bard & Knight (1987) in a mixed sample of sex offenders made up predominantly of rapists. Cluster 4 is similar to Bard & Knight's Group I. The other two clusters do not appear to resemble the remaining two clusters that Bard & Knight report. Their sample was however made up predominantly of rapists and the two additional clusters this with the Antisocial scale featuring among in the additional clusters as well Group II.

Compared to the three clusters of child molesters reported by Chantry & Craig (1994b), Cluster 1 appears similar to their Cluster 2, which had high scores on Dependent, Passive Aggressive and Avoidant scales. Cluster 3 bears some resemblance to their Cluster 1, which had a sub-clinical elevation on the Compulsive scale. Cluster 4 appears to be a replication of their Cluster 3 with high scores on Dependent, Schizoid and Avoidant.

Cluster 1 appears similar to the second of two clusters obtained by Lussier, Proulx, & McKibbin (2001). Their second cluster, with elevations on Histrionic, Narcissistic, and Compulsive scales appears to be a combination of Clusters 2 and 3 in the present study. As such Cluster 2 might better represent it in the two-cluster solution under the hierarchical analysis (which is an agglomeration of clusters 2-1 & 2-2, the equivalents of Clusters 2 and 3 under k-means). Lussier,

Proulx, & McKibbin (2001) used k-means analysis and do not provide a reason for setting the number of clusters at two. The sample they used included more rapists than child molesters.

To further determine the validity of the clusters they were compared on two other measures of personality: Cloninger’s (1987) Tri-partite Personality Questionnaire and Hare’s PCL-R. The TPQ was administered concurrently with the pre-treatment MCMI. Kia Marama staff completed the PCL-R at the completion of the offender’s participation.

The TPQ (Cloninger, 1987) was developed to assess Cloninger's three-dimensional model of personality traits: novelty seeking, reward dependence, and harm avoidance, discussed in Chapter 3. The test provides a measure of each of these. Some limitations of the test are evident. The content of a number of the items is ambiguous as to whether they indicate novelty seeking or reward dependence. In addition, the latter two scales have been shown not to form internally consistent second-order factors (Waller, Lilienfeld, Tellegen, & Lykken, 1991). The TPQ was administered to subjects in the current study at a time when it was being investigated for use within the programme. It provides a useful cross-reference to the personality profile provided by the MCMI. The average scores of the clusters on each of the TPQ scales are reported in Table 2.17.

Table 2.17: Mean Scores on the Tri-partite Personality Questionnaire Scales for the Four Clusters

TPQ Scale	Cluster				F (df effect, df error)	p
	1	2	3	4		
Novelty Seeking	16.5	15.3	15.2	12.4	1.865 (3, 73)	0.1431
Harm Avoidance	17.2	10.5	13.1	22.5	10.592 (3, 73)	0.0000
Reward Dependence	11.5	12.5	16.8	10.9	9.670 (3, 73)	0.0000

The clusters did not differ in terms of their tendency to seek novelty although data was only available for less than half of the total sample on this measure. Clusters 1 and 4 showed a greater tendency for harm avoidance than Clusters 2 and 3. This is consistent with the high scores that these clusters demonstrate on the Schizoid and Avoidant scales. Cluster 3 shows a greater tendency for reward dependence than the other three clusters. This is reflective of a key feature of this group: high scores on the MCMI dependent scale.

The Psychopathy Checklist – Revised (PCL-R, Hare, 1985, 1991) is a twenty item rating scale that has been discussed above. Ratings on offenders in the sample were completed at the end of treatment when staff had the greatest amount of information about the individual to complete the ratings. Another rater independently checked the ratings. Scores on this scale range from 0 to 40. Scores of 30 or greater are considered to indicate the presence of psychopathy. The overall mean PCL-R scores for the sample was 6.6 (S.D.= 6.6) reflecting a low level of psychopathy. The four clusters were not found to differ on the measure with each demonstrating a mean score well below the cut-off. Mean scores for the four clusters are as follows: Cluster 1, 8.1; Cluster 2, 7.7, Cluster 3, 5.8; Cluster 4, 4.7 ($F(3, 102) = 1.636, p = 0.1857$).

An important final question to consider in this study is whether the four clusters derived here bear any resemblance to the four groups identified by Blackburn as described as primary Psychopath, Secondary psychopath, Controlled and Inhibited. By demonstrating a link to Blackburn's work the study opens up opportunities to consider the application to child molesters of other work undertaken with offenders using the interpersonal circle. Blackburn (1995a) provided mean BR scores on the MCMI scales for the four groups identified derived from SHAPS scores. These are reported in Table 2.18.

Table 2.18: Mean BR scores on MCMI scales for Primary Psychopaths, Secondary Psychopaths, Controlled, and Inhibited offenders (from Blackburn, 1995a)

	Primary Psychopaths	Secondary Psychopaths	Controlled	Inhibited
(Valid N	31	31	41	30)
Schizoid	43.0	73.6	58.7	88.9
Avoidant	39.1	79.9	45.5	92.0
Dependent	49.4	67.8	63.7	80.1
Histrionic	68.9	53.3	54.3	29.3
Narcissistic	75.9	64.5	55.2	30.0
Antisocial	73.8	70.4	48.8	40.0
Compulsive	54.0	39.2	66.4	46.0
Pass-Agg	50.6	81.4	28.2	72.9
Schizotypal	46.4	64.4	59.7	74.2
Borderline	51.2	64.7	48.0	64.7
Paranoid	65.4	72.0	53.5	53.8

Table 2.19 shows the squared mean error between Blackburn’s four clusters above and the four clusters derived from the current study. The smallest differences are bolded.

Table 2.19: Squared mean error between Blackburn’s clusters and the four clusters from the present study

Current				
Clusters	Blackburn’s Clusters			
	Secondary Psychopath	Primary Psychopath	Controlled	Inhibited
Cluster 1	22.6	521.0	594.2	332.7
Cluster 2	822.8	67.3	410.8	1601.3
Cluster 3	607.5	346.8	41.3	681.1
Cluster 4	492.6	1189.8	626.9	43.1

From this it can be seen that Cluster 1 is more similar to Blackburn's Secondary Psychopath group than any of Blackburn’s other groups, and no other cluster from the current study was as similar to Secondary Psychopaths. Cluster 2 is more similar to Blackburn's Primary Psychopath than any of Blackburn’s other groups, and no other cluster from the current study was as similar to Psychopaths. These two clusters differ in that Cluster 1 has elevations on Schizoid and Avoidant scales whereas Cluster 2 has elevations on Histrionic and Narcissistic. Consistent with expectations however they both have elevations on the Antisocial scale. Cluster 3 with elevations on Dependent and Compulsive scales is more similar to Blackburn's Controlled group than any of Blackburn’s other groups, and none of the other clusters achieved this level of similarity. Cluster 4 is more similar to Blackburn’s Inhibited group than any of Blackburn’s other groups and none of the other clusters achieved this level of similarity.

These similarities are further illustrated in Figure 2.11. Finally the relationship between Blackburn’s group and the clusters in the present study can be represented in terms of their location within the interpersonal space introduced in Chapter 3. This is illustrated in Figure 2.12.

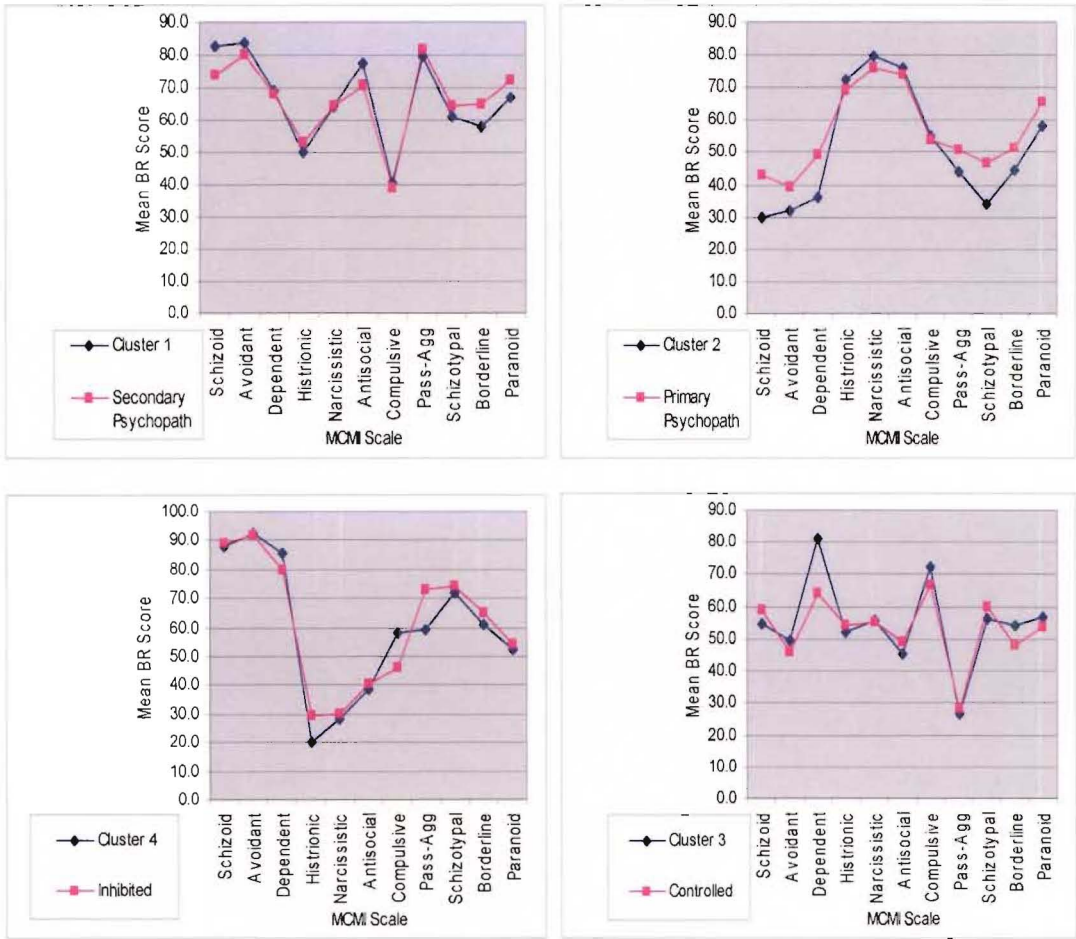


Figure 2.11 Comparison of the profiles of clusters obtained in the present study with those of greatest similarity from Blackburn (1996)

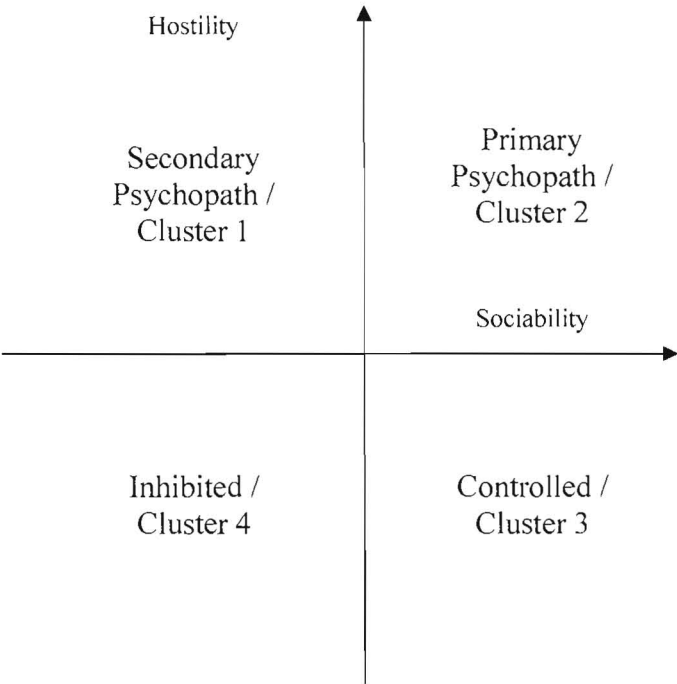


Figure 2.12: Placement of the four clusters in the two dimensional space defined by hostility and sociability derived from interpersonal theory.

2.2.7 Conclusions

This study has shown that a sample of child molesters can be sub-divided on the basis of their scores on the MCMI personality scales. There was evidence to support their separation into 2, 3, 4 or 5 groups. The strongest evidence however was for a four sub-group solution.

The four clusters obtained in this study bear resemblance to clusters found in earlier studies of MCMI scores of child molesters and, importantly, correlate with the MCMI scores reported by Blackburn for his four offender types (Primary Psychopath, Secondary Psychopath, Controlled, and Inhibited). By virtue of this correlation the four clusters can be placed in the two dimensional space defined by the orthogonal axes of hostility and sociability.

Chapter 2 of the Introduction discussed a wide range of factors on which child molesters have been compared and contrasted. The question that the results of this study now raises is the extent to which personality might be used as an organising heuristic for these factors. This question will be addressed in Study 2 which takes the four clusters obtained in this study and compares them on the basis of a range of measures found to be or hypothesized to be associated with sexual offending against children.

2.3: Study 2: Comparison of Clusters on Demographic and Psychometric Measures

2.3.1 Introduction to Study 2

Much of the research reviewed in Chapter 2 reflected a search for variables that distinguish individuals who commit offences against children from other sex offenders, other offenders, and from those who do not commit offences. A large body of literature exists on the features of the child molester population and how it differs from other groups. No single factor was found to distinguish the offenders leading to greater attention being given to sub-groups or typologies within the child molester population. Several typologies were reviewed. It is now known from the results of Study 1 that types of child molesters can be distinguished on the basis of their personality profiles. The four clusters obtained resemble the four groups of personality types identified by Blackburn and others. The identification of these four groups in a child molester population presented the possibility that personality could be used to inform a typology that accounts for the way they offend. To further explore this possibility, the extent to which the groups obtained in Study 1 differ on variables other than their personality needs to be considered. A range of factors linked to sexual offending against children was reviewed in Chapter 2. These included:

- 1) Background and childhood risk factors
- 2) Intellectual functioning
- 3) Emotional functioning
- 4) Interpersonal and relationship skills
- 5) Self perception
- 6) Sexual attitudes, beliefs, and behaviours

Study 2 is in two parts, both still essentially exploratory. The first part compares the clusters obtained in Study 1 on data available on each of these six areas to determine the extent to which an array of factors on which child molesters are assessed can be organised using the construct of personality. This step has relevance to clinicians who must routinely confront the task of interpreting such tests and applying them to a formulation of the case. The second part examines how members of the four clusters respond to treatment by comparing the change in scores on psychometric tests administered prior to and following treatment. Both of these studies are driven by the need to better understand how the child molester population can be sub-divided in ways that treatment aimed at reducing their risk of re-offending can be better targeted.

It is difficult to predict a certain pattern of how the clusters may vary in terms of background factors. The literature on personality suggests that environment may play some role in shaping the eventual personality of offenders but whether this will be observable in the form the data are gathered for the present study is doubtful. No differences are expected in terms of intellectual functioning. Intelligence is often considered to be either one personality construct amongst others or a factor completely independent of personality. The realms of emotional functioning, interpersonal skills and self perception *are* expected to produce significant differences between clusters. It is expected that the positioning of the clusters in the interpersonal space in Figure 2.12 will be useful in interpreting these differences. Sexual attitudes, beliefs and behaviours relevant to sexual offending against children could be linked to personality but this has not been tested to any great degree. If the clusters were found to differ with respect to this it would provide sufficient impetus to look further at the ability of the cluster membership to account more directly for offending behaviour.

2.3.2 Part 1 Method

Data were obtained from two key sources: a detailed demographic questionnaire completed on each participant in the Kia Marama programme and a battery of psychometrics tests administered prior to and following treatment. A copy of the demographic questionnaire is contained in Appendix 1. The questionnaire was completed during the assessment phase but was revised for each offender as additional information on the offender came to light. Items were completed on the basis of interviews with offenders and verified where possible by analysis of official documentation (court and Department of Corrections records) and other sources. Every effort was made to gain as accurate information as was possible on each offender. These were recorded in a central database held securely within the treatment unit.

Offenders were administered a battery of psychometric tests prior to and following their treatment at Kia Marama. Intellectual functioning was assessed once for each offender using a short form of the Wechsler Adult Intelligence Scale – Revised (Wechsler, 1981). Other psychometric tests were generally administered in a group setting. Assistance was provided to those offenders with reading or comprehension difficulties. The tests covered four areas:

- emotional functioning,
- interpersonal skills,
- self-perception, and
- sexual attitudes, beliefs and fantasies.

The arousal patterns of offenders were also assessed physiologically using a plethysmograph. Results for this procedure are not reported because they were not recorded in a sufficiently systematic way allowing analysis and comparison. The following is a brief description of each of the psychometric tests that were administered to cover the four areas above.

Measures of emotional functioning

Four areas of emotional functioning were assessed: depression, anxiety, anger, and social self-esteem using the following tests respectively:

Beck Depression Inventory (BDI, Beck & Steer, 1987). The BDI is a 21-item multiple-choice test designed to measure the presence and degree of depression in adolescents and adults. Each item corresponds to a specific category of depressive symptom and/or attitude. Each item consists of a graded series of four self-evaluative statements ordered from neutral to maximum severity with numerical values of zero, one, two, or three assigned each statement to indicate degree of severity. Total scores range from 0 to 63. Scores from 0 to 9 indicate the respondent is not depressed. Scores from 10 to 19 reflect mild depression; scores from 20 to 29 reflect moderate depression; and scores greater than 30 indicate severe depression.

The test was normed on a sample that included 226 psychiatric in- and outpatients. Test-retest reliability has been studied. Changes in BDI scores tend to parallel changes in the clinical reading of the depth of depression, indicating a consistent relationship between BDI scores and the patients' clinical states. The reliability figures were above .90. Internal consistency studies have shown a correlation coefficient of .86 for the test items, and the Spearman-Brown correlation for the reliability of the BDI yielded a coefficient of .93. Beck, Steer, & Garbin (1988) reported coefficients between .60 and .81 when the BDI is compared with clinical ratings of patients and the Hamilton Rating Scale for Depression.

State Trait Anxiety Inventory (STAI, Speilberger, 1983). The STAI is a self-report assessment inventory that includes separate measures of state and trait anxiety designed to differentiate between the temporary condition of "state anxiety" and the more general and long-standing quality of "trait anxiety" in adults. State anxiety may fluctuate over time and can vary in intensity. In contrast, trait anxiety refers to a general tendency to respond with anxiety to perceived threats in the environment.

Scores on each of these scales range from 20 to 80. High scores on the respective scales indicate greater trait or state anxiety. Scores over 37 on the State scale indicate the respondent is currently anxious. Scores over 40 on the Trait scale indicate that the respondent is typically anxious. Percentile ranks and standard (T) scores are available for male and female adults in three age groups (19-39, 40-49, 50-69), male and female high school and college students, male military recruits, male neuropsychiatric patients, male medical patients, and male prison inmates.

The stability of the STAI scales has been assessed on male and female samples of high school and college students for test-retest intervals ranging from one hour to 104 days. Reliability coefficients decreased as a function of interval length. For the Trait-anxiety scale the coefficients ranged from .65 to .86, whereas the range for the State-anxiety scale was .16 to .62. Coefficient alphas were above .9 for both the state and trait scales. Correlations are presented in the manual between this scale and other measures of trait-anxiety: the Taylor Manifest Anxiety Scale (.80), the IPAT Anxiety Scale (.75), and the Multiple Affect Adjective Check List (.52).

State Trait Anger Inventory (STAXI; Spielberger, 1988). Like the STAI, the STAXI has two scales: one measuring state, or current, anger, the other measuring trait anger. A ten-item stand-alone scale measures state anger, the respondent's current feelings of anger. Trait anger is also assessed by ten items that ask the respondent about his or her disposition towards anger. Scores on each of these scales range from 10 to 40. Clinicians at Kia Marama adopted the standard convention of using scores over 15 on the State scale to indicate the respondent is currently angry and scores over 15 on the Trait scale to indicate that the respondent is typically angry.

The test has three further scales regarding anger expression and control, each with score ranges from 8 to 32. Clinicians at Kia Marama adopted the standard convention of using scores on the Anger Expression scale over 15 to indicate a tendency to externalise or act out anger. Scores on the Anger Suppression scale over 15 are conventionally interpreted as reflecting a tendency to suppress or internalise anger. Scores on the Anger Control scale under 20 conventionally indicate that respondent has poor levels anger control.

The STAXI was normed on a heterogeneous sample of nearly 9000 subjects. Spielberger reported reliability coefficients between .69 and .93 across various samples. Trait Anger correlated highly with other measures of hostility (.50 MMPI Overt Hostility Scale; .69 for the Buss Durkee Hostility Inventory; Spielberger, 1988). The anger expression scales (anger out and anger expression) have also been shown to be valid, with respect to both New Zealand (Knight,

Chisholm, Paulin, & Waal-Manning, 1988) and American (Spielberger, 1988) samples. Initial investigation has demonstrated the validity of the more recently developed Anger Control subscale (Spielberger, 1988).

Social Self Esteem Inventory (SSEI; Lawson, Marshall, & McGrath, 1979). The SSEI is a 30-item scale (15 positively worded and 15 negatively worded) designed to assess performance and self-esteem in social situations only, as opposed to global assessment of self-esteem as a construct. Items are rated from 1 (“completely unlike me”) to 6 (“exactly like me”) with a higher score indicating greater self-esteem in social situations. Item-total correlation was .60, and test-retest reliability of .88. Scores on this inventory range from 30 to 180. Scores under 130 reflect low social self-esteem.

Measure of interpersonal skills

The selection of measurements of interpersonal skills was informed by the literature reviewed in Chapter 2 outlining areas of potential deficits for child molesters. The following areas were assessed: fear of intimacy, loneliness, social avoidance, and assertiveness using the following tests:

Fear of Intimacy Scale (FIS, Descutner & Thelen, 1991). This scale consists of two parts. Part A contains 30 statements requiring respondents to imagine themselves in a close dating relationship and to indicate how strongly they agree or disagree with each statement on a five-point scale. Part B consists of five statements pertaining to their past relationships that respondents rate on a five-point scale. Items are rated on five point scales from 1 to 5, with 1 being “not at all characteristic of me” to 5 being “extremely characteristic of me”. The FIS demonstrated high internal consistency ($\alpha = .93$) and high test retest reliability ($r = .89$) over a one-month interval. Factor analysis revealed the dominance of one primary factor. Convergent and discriminant validity were established with a number of related self-report measures and with therapists' impressions of a clinical population (Descutner & Thelen; 1991; Doi & Thelen; 1993). Scores on this scale range from 35 to 175. Scores greater than 100 reflect a fear of intimacy.

Revised University of California Loneliness Scale (UCLS, Russell, Peplau, & Cutrona, 1980). The Revised UCLS asks indirect questions about experiences associated with loneliness. Responses to each item are rated on a four point Likert scale from “often feel this way” to “never feel this way”. The UCLS has satisfactory reliability and validity (Russell, Peplau, & Cutrona, 1980; Russell, Peplau, & Ferguson, 1978), high internal consistency (alpha of .94) and correlates highly with

other measures of loneliness (Solano, 1980). Scores on this scale range from 20 to 80. Scores greater than 45 indicate the respondent has experiences and emotions associated with loneliness.

Social Avoidance & Distress Scale (SADS, Watson & Friend, 1969). The SADS is a series of 28 true-false questions, equally balanced for positive and negative items, designed to measure distress in social situations and the avoidance of social interactions. The constructs measured include avoiding being with, talking to, or escaping from others for any reason, and experiencing any negative emotion (e.g., being upset, distressed, or anxious). Watson & Friend (1969) provide norms for the test. The scale, developed using 297 undergraduate students, is reportedly homogeneous (internal consistency = .94), and not markedly affected by social desirability (correlation with the Marlow-Crowne = -.25). Construct validity was established with students, using experimental manipulation and correlations with other scales such as the Taylor Manifest Anxiety Scale. A Cronbach's alpha coefficient of close to .90 has been reported for the 5-point scale version of the scale (Leary, 1991). Scores range from 0 to 30 (mean = 9.1; mode = 0). The higher the score the more socially anxious the individual, the lower the score on the test the less socially anxious the individual. Scores greater than 14 are interpreted as indicating the respondent experiences social avoidance and distress.

Assertion Inventory (AI, Gambrill, & Richey, 1975). This test has two scales each ranging from 40 to 200. The Discomfort scale assesses the degree of discomfort the respondent reports regarding the prospect of behaving assertively in a range of situations. Scores above 96 indicate high levels of discomfort in acting assertively. The Response Probability scale measures the likelihood that the respondent will behave assertively in a range of situations. Scores greater than 105 indicate a low probability of acting assertively. The questionnaire assesses the following: refusing requests, expressing personal limitations, initiating social contacts, expressing positive feelings, handling criticism, differing with others, assertion in service settings, and giving negative feedback. The psychometric qualities of the questionnaire are acceptable with test-retest of .87 for the AID scale and .81 for the AIRP scale (Gambrill & Richey, 1975).

Measures of self-perception

The main factor assessed here was the extent to which the subjects feel that events are controlled externally from themselves. The extent to which offenders manage their behaviour in ways that are socially desirable was also assessed. Two tests covered these areas:

Adult Nowicki-Strickland Internal External Scale (ANSIE, Norwicki & Strickland, 1973; Norwicki & Duke, 1974). This is a 40-item yes/no questionnaire measuring the extent to which individuals feel that events are controlled externally. Norms are available for college and non-college adult populations. A mean score of 11.0 (with a standard deviation of 5.6) has been found among non-college adults (Nowicki & Duke, 1983). Split-half reliability indices have varied mostly between .74 and .86; test-retest reliability figures have varied from .56 for a 1-year interval to .83 for a 6-week interval (Lefcourt, 1991). ANSIE scores have been found to be relatively free of a social desirability bias and unrelated to intelligence test scores or gender (Nowicki & Duke, 1983). Scores range from 0 to 40. Scores greater than 15 reflect a belief that external factors control events

Marlow-Crowne Social Desirability Inventory (M-CSDI, Crowne & Marlowe, 1960). The M-CSDI is a well-established and frequently used measure of the extent to which individuals manage their public behaviour in a way that is socially desirable. It is a 33-item scale with a true-false format measures. Crowne & Marlowe (1964) reported a test-retest correlation of .89 over a 1-month interval and an internal consistency coefficient of .88. Scores on the test range from 0 to 33. Scores greater than 15 reflect a “faking good” response style.

Measures of sexual attitudes, beliefs and fantasies

This area is central to information required by clinicians who are treating child molesters. The main areas of assessment are the extent to which offenders endorse attitudes supportive of sexual contact with children, deny harmful aspects of offending against children, and maintain attitudes supportive of abusive sexual behaviour towards adult women. They were also assessed on the themes prevalent in their sexual fantasies. Four tests were used to cover these areas:

Abel & Becker Cognition Scale (ABCS, Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984). This 29-item scale measures cognitive distortions regarding the sexual molestation of children. Respondents mark each item on a scale from 1 (strongly agree) to 5 (strongly disagree). Agreement with any item represents an example of distorted cognitions. Salter (1988) noted that items can be used clinically rather than scored quantitatively. The ABCS has acceptable internal consistency, test-retest reliability and discriminant validity with contrasting groups and severity indices (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989). It is however considered a rather transparent test, the purpose of which is evident to respondents who may modify their responses to align with social desirability. For the purpose of the current study responses were

scored and summed for each subject. Scores can range from 29 – 145. Clinicians at Kia Marama used a cut-off score of 100. Scores less than this are considered to reflect deviant cognitions.

Hostility Towards Women Scale (HTWS, Check, 1985). The HTWS is a 30-item true/false self-report questionnaire that measures sex role stereotyping, adversarial sexual beliefs, sexually conservative attitudes and acceptance of aggression against women. Reliability and validity data were reported as satisfactory, with internal consistency $> .80$ (Check, 1985). The scale predicted aggressive behaviour against both women and men. Scores range from 0 to 30. Scores greater than six are indicative of hostility towards women.

Rape Myth Acceptance Scale (RMAS, Burt, 1980, 1983, Burt & Albin, 1981). This 19-item scale measures the acceptance or rejection of myths about rape. Items 1-11 are scored on a seven-point scale from “strongly disagree” to “strongly agree”. Items 12 and 13 are scored on a seven-point scale ranging from “almost none” to “almost all”. Items 14 to 19 are scored on a seven-point scale from “never” to “always”. The RMAS has good internal consistency, with an alpha coefficient of .88 and has been able to distinguish sexually aggressive men from rape crisis workers but not from students (Burt, 1980). Scores range from 19 to 133. Scores greater than 35 indicate acceptance of rape myths.

Wilson Sex Fantasy Questionnaire (WSFQ, Wilson, 1978; Gosselin & Wilson, 1980). The WSFQ has 40 items rated on a six-point scale (“never” to “regularly”) designed to measure the frequency of a variety of sexual fantasies. It has 4 sub-scales: 1) intimate themes (such as kissing and coitus with a loved one), 2) exploratory themes (such as engaging in simultaneous sex with multiple partners, or partner swapping), 3) impersonal themes (such as having sex with a stranger, voyeurism, and fetishism), and 4) sado-masochistic (involving the use of force or humiliation). Scores on each sub-scale of the WSFQ range from 0-50, allowing a total range of scores from 0-200; higher scores represent more frequent sexual fantasizing. Gosselin and Wilson (1980) reported mean scores on the WSFQ for an adult male community sample: Intimate sub-scale (16.9), Exploratory sub-scale (8.1), Impersonal sub-scale (7.6), Sado-Masochistic sub-scale (2.3), and Total (34.9). No standard deviations or participant numbers were provided.

The four clusters obtained in Study 1 were compared on items and subjected to further analysis on the basis of data routinely obtained during their treatment at Kia Marama. Continuous data were subjected to analysis of variance (ANOVA); discrete data were compared using Pearson’s χ^2 .

2.3.3 Part 1 Results

Basic Demographic Information

Information on basic demographic information was routinely obtained as part of the entry assessment to the treatment unit and recorded in the demographic questionnaire. The clusters derived in Study 1 were compared on the following nine demographic factors:

- Country of birth
- Ethnicity
- Birth order
- Father's occupation
- Offender's Educational attainment
- Source of income
- Occupational level
- Income bracket
- Work stability

The results of the analyses on each of the above demographic variables are reported sequentially in the following series of tables. Each table reports the details of the variable under consideration and the count for each cluster. Results of Chi² test and probability levels are reported for each of the variables. In general it will be seen that there is very little difference between the four clusters on these demographic variable.

To start with Table 2.20 contains birth, ethnicity, and socio-economic status of family of origin for each cluster. Table 2.21 contains details of educational attainment for each cluster. Table 2.22 reports on source of income and occupational level for cluster members at the time of their arrest. Table 2.23 then presents further occupational information in the form of incomes brackets and work stability for each cluster.

The results indicate that the four clusters do not differ overall in terms of such basic demographics as birth and ethnicity details, socio-economic status of family of origin, educational attainment. Of the nine variables considered the four clusters from Study 1 were found to vary significantly on only one, Ethnic origin. It is evident that the distribution of Maori across the groups contributes to the significance of the differences between them. Maori are almost twice as likely to be members

of Cluster 1 and Cluster 2 than would be statistically expected, and appear in Cluster 4 at about 1/6 the expected rate. European subjects appear to be underrepresented in Cluster 1 by about 1/3.

Table 2.20 Birth, ethnicity, and socio-economic status of family of origin for each cluster

	Cluster				Chi ²	df	p
	1	2	3	4			
Country of birth for members of each cluster							
New Zealand	35	18	25	24	13.6513	15	0.5521
Australia	0	0	0	1			
England	0	1	0	0			
Scotland	1	0	1	1			
The Netherlands	0	0	1	0			
Western Samoa	1	0	0	0			
Ethnicity of members of each cluster							
European	20	17	21	24	20.9528	9	0.0129
Maori	16	2	6	1			
Samoan	1	0	0	0			
Cook Island	0	0	0	1			
Birth order of members of each cluster							
1	11	6	6	7	25.0942	30	0.7204
2	3	3	3	6			
3	8	3	7	9			
4	2	1	5	1			
5	2	1	3	1			
6 - 12	11	5	3	2			
Father's occupation for members of each cluster							
Professional/ managerial	3	0	2	1	16.3823	18	0.5659
Other white collar/ farming	6	1	4	4			
Clerical / sales	1	1	1	1			
Trades/ skilled labourer	12	13	13	8			
Labourer / unskilled	14	3	6	11			
Unemployed / beneficiary	1	0	0	1			
Not known	0	1	1	0			

Table 2.21 Educational attainment for members of each cluster

Educational attainment	Cluster				Chi ²	df	p
	1	2	3	4			
Primary only	5	0	1	5	23.5757	27	0.6537
Form 3-4	15	8	8	10			
Form 5	10	6	7	7			
Gained School Certificate	2	2	2	0			
Form 6	1	1	3	2			
Form 7	2	2	3	1			
Tertiary	2	0	4	1			

Table 2.22 Source of income and occupational level for cluster members at the time of their arrest

Source of income at arrest	Cluster				Chi ²	df	p
	1	2	3	4			
Source of income at time of arrest for members of each cluster							
Wage/salary/ self employed	18	9	14	12	3.7472	9	0.9272
Investments / savings	10	5	6	8			
Benefit	9	5	6	5			
None/ dependent on others	0	0	1	0			
Occupational level at arrest for members of each cluster							
Professional/ managerial	1	0	5	2	17.5619	18	0.4849
Other white collar/ farming	3	2	2	1			
Clerical / sales	3	0	3	1			
Trades/ skilled labourer	16	11	9	8			
Labourer / unskilled	11	3	4	8			
Unemployed	2	1	2	3			
Beneficiary	1	2	2	2			

Table 2.23 Income bracket and work stability at arrest for members of each cluster

Income bracket at arrest	Cluster				Chi ²	df	p
	1	2	3	4			
Income bracket at arrest for members of each cluster							
< \$20 k	17	11	11	16	12.0940	9	0.2081
\$20 - \$30 k	13	3	9	4			
\$31 - \$40k	3	5	3	4			
> \$40k	4	0	4	1			
Work stability for members of each cluster							
Good	17	11	12	14	4.6593	9	0.8629
Adequate	10	4	6	4			
Marginal	6	3	5	2			
Poor	4	1	4	5			

Background and Childhood Risk Factors

This section considers how events during the offenders' childhoods may have impacted differentially on the four clusters. Information on the following seven factors were obtained during the assessment phase and entered into the demographic questionnaire:

- Parenting
- Stability of family of origin
- Number of siblings in family of origin
- Presence of parental alcohol problems
- Parental Psychiatric problems
- Relationship difficulties with parents
- Childhood events

The clusters were compared on these factors with the results reported in Tables 2.24 to 2.29. Again it will be seen that there are very few differences between the four clusters.

Table 2.24 Parenting conditions of upbringing for members of each cluster

Upbringing	Cluster				Chi ²	df	p
	1	2	3	4			
Adopted	4	1	2	5	2.7932	3	0.4246
Fostered	7	3	2	3	1.9219	3	0.5888
Parents separated	12	5	5	8	1.6958	3	0.6379

Table 2.25 Stability of family of origin for members of each cluster

Stability	Cluster				Chi ²	df	p
	1	2	3	4			
Normal	8	8	12	9	8.7266	6	0.1896
Moderate difficulties	14	5	11	6			
Severe difficulties	15	6	4	11			

Table 2.26 Number of siblings for members of each cluster

	Cluster				F (3, 105)	p
	1	2	3	4		
Number of siblings	6.2	5.8	5.7	4.7	1.06	0.3694

Table 2.27 Incidence of reported alcohol and psychiatric problems in the parents of cluster members

Parental alcohol problems	Cluster				Chi ²	df	p
	1	2	3	4			
Incidence of reported alcohol problems in the parents of cluster members							
Mother	3	0	0	1	10.4060	9	0.3187
Father	13	6	8	6			
Both	5	0	1	3			
Incidence of reported psychiatric problems in the parents of cluster members							
Mother	3	1	0	1	7.6575	6	0.2643
Father	0	3	2	2			

Table 2.28 Cluster members reported relationship difficulties between them and their parents

Relationship difficulties with parent	Cluster				Chi ²	df	p
	1	2	3	4			
Mother	10	1	2	5	11.1841	6	0.0829
Father	15	14	12	11			

Table 2.29 Incidence of significant childhood events reported by cluster members

Childhood events	Cluster				Chi ²	df	p
	1	2	3	4			
Major illness	21	6	4	10	12.0616	3	0.0072
Psychiatric problems	14	3	4	7	5.5294	3	0.1369
Parental death	14	7	5	6	3.8203	3	0.2816
Physical abuse	21	10	8	11	5.1169	3	0.1635
Emotional abuse	24	8	8	14	8.3708	3	0.0390
Peer victimisation	11	7	7	7	8.0221	6	0.2365
Sexual abuse	25	13	14	16	1.2364	3	0.7443

Given the prevalence of reported sexual abuse amongst those who commit sexual offences against children, and the potential relevance of this to the treatment of such offenders, further information was obtained from those who reported being sexually abused during their childhood. This information consisted of the gender of the abuser, the relationship of the abuser to the offender, and the chronicity of the reported abuse. Information on these three factors is reported in Table 2.30. Again consistent with the general finding so far the clusters did not report differences in aspects of their abuse histories.

Often offenders reported being abused by more than one person during their childhood. Information was obtained on the “secondary” and “tertiary” abusers. Results for these did not differ substantially from the picture that emerged when only primary abusers are considered so these additional results are not reported here.

Table 2.30 Details of abuser for reported childhood sexual abuse of cluster members

	Cluster				Chi ²	df	p
	1	2	3	4			
Gender of primary sexual abuser							
Male	17	9	10	11	2.1583	9	0.9887
Female	3	2	1	2			
Both	5	2	4	3			
Relationship of primary abuser							
Natural father	2	0	1	3	26.2977	24	0.3383
Natural mother	2	0	0	1			
Stepfather	2	0	0	0			
Brother	2	0	2	2			
Sister	4	1	1	1			
Other relative	7	4	6	5			
Non-relative	4	8	2	4			
Stranger	2	0	2	0			
Chronicity of sexual abuse							
Single incident	10	5	8	5	3.9286	6	0.6863
Chronic	15	8	6	11			

The results indicate that the clusters do not differ on the majority of the items reported in Tables 2.25 to 2.30. The clusters were found to differ in the extent to which they reported experiencing major childhood illness. Members of Cluster 1 were almost twice as likely to report a significant illness during their childhood than what would be statistically expected. Conversely members of Cluster 3 were less than half as likely as expected to report a major illness. The clusters also varied in the extent to which they reported experiencing emotional abuse in their childhood. Members of Clusters 1 and 3 were more likely to report emotional abuse in childhood than would be statistically expected. Other forms of abuse (physical, sexual and peer victimisation) did not distinguish between the Clusters. When the nature of sexual abuse reported by clusters members was considered in more detail no differences between the clusters were found.

The following sections compare the clusters on measures related to intellectual functioning and literacy, emotional functioning, relationship experience and interpersonal skills, self-perception, and sexual attitudes, beliefs and behaviours. As will be seen, the use of psychometric tests to measure these aspects identifies considerable differences between the four clusters in contrast to the results reported so far.

Intellectual functioning and literacy

Intellectual functioning was assessed using the WAIS-R (Silverstein short form). The clusters did not differ significantly on this measure. The mean IQ for each cluster was within the average range of intelligence (Cluster 1, 97.7; Cluster 2, 103.3; Cluster 3, 102.0; Cluster 4, 97.0; $F [3, 105] = 1.08$; $p = .3598$). Literacy problems were rated on the basis of the Schonell Reading Test.

Results are reported in Table 2.31. Cluster 1 had three times the rate of moderate reading problems than statistically expected. Cluster 2 had fewer members with any level of reading problem than would be expected. Cluster 3 had twice the number of members with a mild literacy problem than would be expected.

Table 2.31 Incidence of literacy problems in cluster members

Adult literacy problems	Cluster				Chi ²	df	p
	1	2	3	4			
Mild	4	1	4	8	19.4770	9	0.0215
Moderate	7	0	0	1			
Severe	1	0	1	0			

Emotional functioning

Offenders were questioned about the incidence of a range of problems in their adult lives.

Information regarding these was recorded in the demographic questionnaire. The incidence of major problems is reported in Table 2.32. Assessment of emotional functioning formed a substantial part of the psychometric battery routinely administered to offenders at the programme. Assessment covered depression, anxiety, anger and self-esteem. The results are reported in Table 2.33.

Table 2.32 Incidence of physical, psychiatric, alcohol and drug problems in cluster members

	Cluster				Chi ²	df	p
	1	2	3	4			
Physical disability	9	3	2	4	3.2925	3	0.3487
Adult psychiatric illness	7	2	4	5	0.8450	3	0.8387
Adult alcohol problem	24	8	9	8	9.5776	3	0.0225
Alcohol problem in year before arrest	12	2	6	4	4.4655	3	0.2154
Adult drug problem	11	4	5	3	3.1910	3	0.3631

Table 2.33 Scores for each cluster on tests assessing emotional functioning

	Cluster				F df Effect, df Error)	p
	1	2	3	4		
Depression						
Mean Beck Depression Inventory score	18.1	9.5	10.2	18.1	7.494 (3, 97)	0.0001
Anxiety						
Mean STAI State Anxiety scale score	40.9	29.2	34.5	44.4	7.605 (3, 105)	0.0001
Mean STAI Trait Anxiety scale score	45.3	35.5	36.7	49.5	13.337 (3, 105)	0.0000
Anger and Social Self Esteem						
Mean STAXI State Anger scale score	13.9	12.5	10.6	13.1	2.201 (3, 104)	0.0923
Mean STAXI Trait Anger scale score	21.2	18.0	14.8	16.2	8.244 (3, 105)	0.0001
Mean STAXI Anger Expression Scale score	17.4	16.5	12.3	13.0	10.190 (3, 105)	0.0000
Mean STAXI Anger Suppression Scale score	19.0	16.5	15.4	18.7	3.731 (3, 103)	0.0136
Mean STAXI Anger Control Scale score	19.2	23.4	25.7	23.2	6.787 (3, 105)	0.0003
Mean SSEI score	111.6	145.1	118.9	89.4	25.970 (3, 104)	0.0000

Information from the demographic questionnaire indicated that the clusters did not vary in terms of their experience of physical disability, adult psychiatric illness or drug problems. They did differ with respect to the occurrence of an alcohol problem at any time over the life course. Members of Cluster1 were considerably more likely than expected to report an alcohol problem. All other Clusters were less likely than expected to report such a problem although generally the difference between expected and observed rates was small.

Regarding depression, the mean scores of Clusters 1 and 4, reported in Table 2.33, approached the range described as “moderate depression” while Clusters 2 and 3 showed mean scores just inside the mild depression range. Clusters 1 and 4 were also characterised by high scores on the STAI State Anxiety and Trait Anxiety scales while Clusters 2 and 3 were characterised by low levels of anxiety. The Clusters did not differ significantly on the State Anger scale of the STAXI and all the mean scores were within the range indicating the absence of current anger. Clusters 1 and 2 share elevations on the Trait Anger scale and the Anger Expression scale indicating a tendency to be typically angry across multiple situations. Cluster 4 also showed an elevation on the Trait Anger scale but not to the extent of the other two groups and more aligned with Cluster 3. Cluster 1 also showed an elevation on the Anger Suppression scale, as did Cluster 4, indicating a tendency to suppress or internalise anger. Although Cluster 2 and 3 showed mean scores on this scale above the cut-off they were not to the same extent as the other two clusters. Only Cluster 1 revealed a score suggestive of poor anger control and this was very close to the cut off score. Clusters 1, 3 and 4 showed mean scores on the SSEI indicative of low social self-esteem whereas Cluster 2 did not. Clusters 1 and 4 revealed scores indicative of discomfort at the prospect of acting assertively and a low probability of responding assertively when required. Cluster 2 showed no discomfort and a reasonable likelihood of responding assertively when required. Cluster 3 showed low levels of discomfort at the prospect of acting assertively but also a low probability of acting assertively.

The clusters, then, showed differences on eight of the nine psychometric measures related to emotional functioning. This provided some indication that personality style, as measured by the MCMI, captured many of the aspects of emotional functioning considered being associated with sexual offending against children. The next section examines the relationship between personality style and relationship experience and interpersonal skills.

Relationship experience and interpersonal skills

Information was gathered during assessment on the relationship history of offenders including the number of significant relationships they had had, the duration and degree of satisfaction they experienced in their most significant relationship marital status of offenders, and the whether or not they were resuming a relationship upon their release. Information on these was recorded in the demographic questionnaire and is summarised in Tables 2.34 and 2.35.

Table 2.34 Mean number and duration of marriage-like relationships for each cluster

	Cluster				F (df effect, df error)	p
	1	2	3	4		
Number of marriage-like relationships	2.0	2.0	1.5	1.3	1.20 (3, 105)	0.3147
Duration of marriage-like relationships (years)	12.2	13.0	9.3	14.2	1.07 (3, 105)	0.3657

Table 2.35 Marital status, living status at the time of arrest and relationship satisfaction ratings of cluster members

Cluster members	Cluster				Chi ²	df	p
	1	2	3	4			
Marital status							
Never married	6	1	6	5	11.6648	18	0.8640
Married, first time	11	5	7	7			
Remarried	2	1	2	0			
Separated	6	2	5	3			
Divorced	4	5	5	3			
Widowed	1	1	1	2			
Defacto	7	4	1	6			
Living Status at arrest							
Living with partner	22	12	14	15	0.6571	3	0.8832
Living with children	18	9	11	9	1.4300	3	0.6985
Satisfaction reported by cluster members for their most significant relationship							
High	11	10	8	9	11.5027	9	0.2429
Moderate	14	8	13	8			
Low	10	1	3	8			

Cluster members did not differ in the number of their own children they reported having (Cluster 1: 2.5; Cluster 2: 2.5; Cluster 3: 2.4; Cluster 4 3.0; $f = 0.46$ [3, 105], $p = 0.7105$). The clusters were compared regarding their intentions to resume a significant relationship upon their release from prison but did not differ significantly on this ($\chi^2 = 7.9029$, $p = 0.5440$). 10 members of Cluster 1 reported intending to resume a relationship. 8 from Cluster 2, 7 from Cluster 3 and 12 from Cluster 4 reported intending to resume a relationship.

Offenders were administered a number of questionnaires as part of the psychometric battery assessing aspects of relationship skills, intimacy, and their experience of loneliness and social avoidance. The results of these are reported in Table 2.36.

Table 2.36 Mean scores of clusters on questionnaires measuring assertiveness, fear of intimacy, loneliness and social avoidance

Scale	Cluster				F (df Effect, df Error)	p
	1	2	3	4		
Assertiveness						
Mean Assertion Inventory– Discomfort scale scores	103.0	69.6	74.2	107.0	4.516 (3, 63)	0.0062
Mean Assertion Inventory - Response probability scale scores	113.5	102.6	108.4	123.0	4.138 (3, 104)	0.0082
Fear of Intimacy						
Mean Fear of Intimacy scale scores	96.5	91.4	82.1	109.0	7.609 (3, 100)	0.0001
Loneliness						
Mean UCLS scores	45.9	37.5	39.0	54.2	13.218 (3, 91)	0.0000
Social Avoidance and Distress						
Social Avoidance & Distress Scale	17.0	7.3	7.5	23.4	16.860 (3, 52)	0.0000

The clusters did not differ in terms of their relationship history. They had all had a comparable number of significant relationships, these were of substantially similar duration and they report analogous degrees of satisfaction with these relationships. The clusters were in similar relationship circumstances at the time of their arrest and the same degree of confidence that they would be resuming a significant relationship upon release.

In contrast to the findings for relationship history the results of all the psychometric tests indicate substantial differences between the clusters. Regarding a reported fear of intimacy Cluster 4 showed a tendency to experience fear of intimacy on the FIS while Cluster 1 approached the cut-off score for this. Mean score from Clusters 3 and 4 suggested that as groups these clusters do not fear intimacy. Clusters 1 and 2 indicated that they are more likely to have experiences and emotions associated with loneliness (UCLS) and social avoidance and distress (SADS) whereas Clusters 2 and 3 showed mean scores in the “normal” range on these scales. The following section compares the clusters on measures of self-perception.

Self-perception

Two aspects of self perception were considered in the psychometric battery: the extent that offenders perceive their circumstances to be influenced by external factors beyond their control and the extent to which they modify their presentation to match the social demands of the circumstances they are in. Scores on the Adult Norwicki-Strickland Internal External Scale (ANSIES) and the Marlow Crowne Social Desirability Inventory (M-CSDI) measure these two factors respectively and are reported in Table 2.37.

Table 2.37 Locus of control and social desirability scores for each cluster

Scale	Cluster				F (df Effect, df Error)	p
	1	2	3	4		
Locus of control						
Mean ANSIES score	17.3	11.9	11.6	18.8	12.416 (3, 103)	0.0000
Social desirability						
Mean M-CSDI score	13.7	16.8	20.1	18.4	6.835 (3, 105)	0.0003

The results indicate that Clusters 1 and 4 showed a tendency to hold beliefs that external factors control events compared to Clusters 2 and 3 who, on average, believed in an internal locus of control (ANSIES). According to the M-CSDI Cluster 3 and 4 were more likely to demonstrate a socially desirable response style than the other two clusters. Cluster 2 had a mean score on the M-CSDI over the cut-off for socially desirable responding but this is not as great as Clusters 3 and 4. Again then the clusters derived from their personality style, as measured by the MCMI, differed significantly on two measures of self-perception.

Sexual attitudes, beliefs, and behaviours

The final aspect on which the clusters are compared in this part of the study is in terms of their sexual attitudes, beliefs and behaviours. Offenders were administered the Abel & Becker Cognition Scale, the Hostility Towards Women Scale, the Rape Myth Acceptance Scale, and the Wilson Sex Fantasy Inventory as part of the psychometric battery. Each of these assesses aspects of sexual attitudes potentially related to offending behaviour. The clusters were compared on their scores on each of these scales. The results are reported in Table 2.38.

Information was gathered from offenders regarding a range of aspects of their sexual experience including sexual orientation, reported use of pornography, incidence of paraphilias, and incidence of sexual dysfunction. The clusters were compared on these factors as in Table 2.39.

As can be seen from these tables the clusters did not vary in terms of their reported sexual orientation, use of pornography, incidence of paraphilias, or incidence of sexual dysfunction. They did however differ on all but one of the psychometric scales measuring sexual attitudes, beliefs and fantasies. None of the clusters had mean scores on the ABCS in the range indicating the presence of deviant cognitions. The scores did differ significantly between the clusters however with Cluster 3 showing the lowest level of distortions, and Cluster 1 showing the highest. All clusters had mean scores on the HTWS indicating the presence of hostile attitudes towards women. Again there were significant differences between the clusters with Cluster 1 and 4 showing the highest scores while the mean scores of Clusters 2 and 3 were close to the cut-off score. All the clusters had mean scores indicating an acceptance of rape myths but again Clusters 1 and 4 showed significant elevations while the scores of Clusters 2 and 3 were close to the cut-off score. Clusters 1 and 2 showed substantial elevations on the WSFQ Exploratory scale indicating a tendency to use fantasies with an exploratory theme, the intimacy scale, indicating a tendency to use fantasies

involving themes of intimacy, and the Impersonal scale indicating a tendency to use fantasies involving theme of impersonal sexual contact. The latter was not significant however. Cluster 1 showed a tendency to use sexual fantasies involving sado-masochistic themes.

Table 2.38 Mean scores for each cluster on the ABCS, HTWS, RMAS, and WSFI

Scale	Cluster				F (df Effect, df Error)	p
	1	2	3	4		
Cognitive distortions						
ABCS	116.9	125.5	130.3	126.2	3.327 (3, 105)	0.0225
Hostility towards women						
HTW	13.5	8.7	6.4	12.0	9.720 (3, 101)	0.0000
Rape myth acceptance						
RMAS	49.1	38.2	36.6	48.1	4.728 (3, 99)	0.0040
Sexual fantasies						
WSFQ - Exploratory Scale	12.0	13.1	7.7	8.0	2.874 (3, 104)	0.0398
WSFQ - Intimacy Scale	25.7	27.2	17.9	16.2	7.223 (3, 104)	0.0002
WSFQ - Impersonal Scale	11.7	12.2	8.7	8.5	2.040 (3, 104)	0.1129
WSFQ - Sado/Masochistic Scale	5.6	2.5	2.1	2.3	3.518 (3, 104)	0.0177

Table 2.39 Reported sexual orientation, pornography use, incidence of paraphilias, and sexual dysfunction of cluster members

	Cluster				Chi ²	df	p
	1	2	3	4			
Sexual Orientation							
Heterosexual	31	17	19	21	6.4913	9	0.6899
Heterosexual with “homosexual leanings”	3	0	2	1			
Homosexual	1	0	3	2			
Bi-sexual	2	2	3	2			
Pornography Use							
Never	11	5	6	11	3.6331	9	0.9339
Minor	14	6	11	7			
Occasional	6	4	4	4			
Frequent	6	4	6	4			
Paraphilia							
Rape	3	1	2	5	3.2565	3	0.3538
Sado/masochism	4	1	0	1	3.7152	3	0.2939
Fetishism	4	2	2	1	1.1412	3	0.7671
Voyeurism	4	1	4	4	1.3574	3	0.7156
Exhibitionism	2	1	3	4	2.3045	3	0.5117
Transvestism	0	0	1	0	3.0652	3	0.3817
Bestialism	2	0	2	1	1.4934	3	0.6838
Other	2	1	2	0	1.8171	3	0.6112
Sexual dysfunction							
Premature ejaculation	4	1	2	2	5.6366	12	0.9333
Retarded ejaculation	1	1	0	2			
Impotence	6	2	4	3			
Other	1	0	1	2			
Treatment received	8	2	5	9	4.0603	3	0.2551

2.3.4 Part 1 Discussion

The four clusters derived in Study 1 were found to be virtually indistinguishable on basic demographic factors. That is, in terms of information routinely gathered by the Kia Marama programme on the background circumstances and demographic information on participants, there was no difference between the four groups. The clusters did show differences in terms of their ethnic make-up, the incidence of a major childhood illness, the incidence of childhood emotional abuse, and the incidence of adult alcohol problems.

The absence of significant differences between the four clusters on demographic factors could easily mask or disguise meaningful diversity between the clusters that only emerged when psychometric data were compared. What is interesting from the results is that the clusters varied considerably on nearly all the psychometric tests. On the basis of the significant differences that were found between the clusters it is possible to suggest a clinical profile for each of them.

Overall Cluster 1 stands out for its level of pathology. They were more likely to report experiences of major childhood illnesses, childhood emotional abuse and alcohol problems in adulthood. They had three times the rate of moderate reading problems than statistically expected. The cluster had clinically significant elevations (based on the cut-off scores provided by the respective test manuals or in-house thresholds developed at Kia Marama) on 21 of the 28 scales. They show the greatest level of deviancy on all the scales used to measure sexual attitudes, beliefs, and behaviours. The cluster is characterised by higher levels of emotionality with high scores on measures of depression, anxiety and anger, using the interpretative criteria reported above for the relevant tests. They reveal a complex profile with tendencies to both express and suppress anger. This may seem paradoxical but is consistent with their elevated scores on the both MCMI Passive-Aggressive and Anti-social scales. They report the poorest ability to control angry feelings of all the clusters. They report a low level of social self-esteem, discomfort at the prospect of behaving assertively and a concomitantly low probability of acting assertively. They experience loneliness, and social avoidance and distress, and tend to believe that external factors control events. Although not statistically significant they have the lowest average IQ, at the lower end of the average range. Overall the profile is highly supportive of the positioning of Cluster 1 on Figure 2.12 (high on hostility, low on sociability).

These findings are generally consistent with the view that emerged from the literature reviewed in Chapter 2 on secondary psychopaths. Henderson's (1982, 1984) Disturbed/Hostile group

(Secondary Psychopaths) showed generally poor social skills in a range of situations and was likely to be anxious, quiet and lacking confidence. Secondary psychopaths have been found to be the most deviant in terms of MMPI and Special Hospitals Assessment of Personality and Socialization (SHAPS; Blackburn, 1982; see Blackburn, 1993a, p. 34) profiles and in terms of EEG abnormalities, emotional imagery measurements, intensity of anger, and low IQ (Blackburn, 1993a).

Cluster 2 is similar to Cluster 1 in terms of sexual attitudes, beliefs and behaviours. They are very different in terms of emotionality, being the only cluster whose mean is in the normal range for depression. They report low levels of trait and state anxiety and like the other clusters are not currently angry. They share Cluster 1's tendency to be typically angry and to both externalise and suppress anger. They report no difficulties with self-esteem, assertiveness, fear of intimacy, loneliness, or social avoidance and distress. They generally believe that internal factors control events, and show a mild tendency to respond in a socially desirable manner. This profile is consistent with their position on Figure 2.12. They are distinguished from Cluster 1 by their high sociability but like Cluster 1 display a level of hostility.

Again the findings are consistent with earlier results. Henderson's (1982, 1984) Extrovert/Hostile group (Primary Psychopaths) reported no general social difficulties but had problems with temper control. Primary Psychopaths have been found to have the highest levels of autonomic arousal and highest levels of sensation seeking (Blackburn, 1993a).

The key word to describe Cluster 3 is "conventional". They were the least distorted of the clusters in terms of deviant cognitions and hostility towards women and show a more conventional profile in terms of sexual fantasies. They revealed a very normal profile in terms of emotional functioning depression on the cut-off for mild depression and no problems with anxiety or anger. Their difficulties appear to reside in the areas of social confidence and esteem. They are the most reward dependent of the clusters and the most likely to respond in a socially desirable way. This tendency may have masked more significant problems on some of the other inventories. The profile as presented is consistent with their position on Figure 2.12: low on hostility, high on sociability. They share this latter characteristic with Cluster 2 but where Cluster 2 are likely to be outgoing and gregarious, this cluster will be conforming and controlled so as not to appear unconventional (e.g. they don't report discomfort at the prospect of acting assertively, they are just unlikely to do it).

Again these are consistent with earlier findings. Henderson's (1982, 1984) Controlled group showed few social skills difficulties of any sort. Controlled subjects have been shown to display denial of strong emotional reaction (Blackburn, 1993a).

Cluster 4 showed high levels of hostility towards women and an acceptance of rape myths. They are most like Cluster 1 in this respect. They are also similar to Cluster 1 in terms of their emotional functioning, experiencing depression and anxiety, low social self esteem and high discomfort in acting assertively. Like Cluster 1 they exhibit an external locus of control and characteristically exhibit harm avoidance. They are more like Cluster 3 when it comes to experiencing and expressing anger. Again this is consistent with their position on Figure 2.12. Cluster 4, according to this, should be low on hostility and low on sociability.

Henderson's (1982, 1984) Inhibited group was similar to his Secondary Psychopath group in showing generally poor social skills in a range of situations and were likely to be anxious, quiet and lacking confidence. Blackburn (1993a) found Inhibited subjects to demonstrate the greatest deficiencies in social skills.

Study 1 showed that four clusters could be derived in a population of sexual offenders against children that bear resemblance to the four personality types that Blackburn and others have found in a variety of offender populations. This initial part of Study 2 has shown that while the clusters do not differ substantially on demographic and background factors, they do differ on psychometric tests measuring factors that the earlier literature has linked with offending in child molesters. From this study it appears that the framework provided by the construct of personality offers some explanation for the various roles of these factors across the child molester population. More generally the confirmation of subtypes within the population has implications for treatment, one of which is that they may respond differently to the form of standardised treatment that is offered at Kia Marama and other programmes. The responsiveness of the four clusters to treatment is explored in the second part of this study.

2.3.5 Part 2 Method

To evaluate progress in treatment the psychometric tests administered prior to treatment were administered again following the offenders' completion of the programme. Change scores for each of the psychometric tests were calculated between their administration prior to treatment and their administration at completion so that the responsiveness to the four clusters derived in Study 1 to treatment could be compared. Change scores were calculated by subtracting the pre-treatment score from the post treatment score. The clusters were compared on these scores using a one-way ANCOVA. In each of these analyses the pre-treatment score was included as a covariate in order to take into account the scope for change on each measure.

2.3.6 Part 2 Results

Mean change scores of the four clusters on the psychometric tests discussed in Part 1 are presented in Tables 2.40 and 2.41. This analysis provides an overall picture of how the clusters compared in terms of statistical changes on each of the measures.

This however may obscure clinical changes that occur between the pre-treatment assessment and post-treatment assessment. To address this further analysis was undertaken. As noted above in the description of the psychometrics, norms or clinical thresholds are used by the clinicians at Kia Marama to establish the presence or severity of the phenomena measured by the tests. The four clusters were compared on the percentage of their members who met the threshold indicating the presence of the phenomenon measured on each of the tests. The thresholds used are summarised in Table 2.42. For two tests, the Abel & Becker Cognition Scale and the State Trait Anger Inventory in-house thresholds were used.

Table 2.43 shows the percentage of each cluster that exceeded the clinical thresholds on each of psychometric tests measuring aspects of emotional functioning. The differences between the percentages pre and post were compared using a t-test (difference between two percentages, Statistica, Statsoft, 1995). Table 2.44 shows the percentage of each cluster that exceeded the clinical thresholds on each of psychometric tests measuring interpersonal skills. The p-values from a t-test are again reported for each cluster on each test. Finally Table 2.45 shows the percentage of each cluster that exceeded the clinical thresholds on psychometric tests measuring aspects of sexual attitudes, beliefs and fantasies. p-values from t-tests are reported as above.

Table 2.40: Mean change between pre-treatment and post-treatment on psychometric tests measuring emotional functioning and interpersonal skills

	Cluster				F (df effect, df error)	p
	1	2	3	4		
Emotional functioning						
Beck Depression Inventory	-7.3	-6.2	-2.9	-10.0	0.7300 (3, 69)	0.5376
STAI – State	-6.7	-2.4	-8.3	-5.1	4.7568 (3, 101)	0.0038
STAI – Trait	-5.9	0.5	-5.5	-6.7	2.1431 (3, 101)	0.0995
STAXI – State anger	-2.3	-1.7	-0.4	-2.0	1.5611 (3, 99)	0.2037
STAXI - Trait anger	-2.5	0.2	-0.4	-1.5	2.0362 (3, 100)	0.1136
STAXI - Anger expression	-0.5	-0.6	2.2	0.3	1.7461 (3, 100)	0.1625
STAXI - Anger suppression	-2.0	-2.7	-1.8	-2.7	2.9260 (3, 98)	0.0375
STAXI - Anger control	1.2	0.0	-0.6	1.5	1.4165 (3, 100)	0.2424
Social Self Esteem Inventory	9.7	0.9	20.4	18.2	2.9782 (3, 99)	0.0351
Interpersonal skills						
Assertion Inventory - Discomfort	-10.4	-26.4	-26.5	-41.4	3.3254 (3, 29)	0.0333
Assertion Inventory - Response Probability	-11.9	-14.2	-14.8	-13.0	2.3138 (3, 100)	0.0805
Fear of Intimacy Scale	-1.0	-18.2	-3.9	-11.0	5.1878 (3, 96)	0.0023
University of California Loneliness Scale	-5.1	-4.9	-4.5	-9.6	1.6474 (3, 87)	0.1844
Social Avoidance & Distress Scale	-3.6	1.0	-3.3	-1.0	0.2280 (3, 11)	0.8750

Table 2.41: Mean change between pre-treatment and post-treatment on psychometric tests measuring self-perception, sexual attitudes, beliefs, and fantasies

	Cluster				F (df effect, df error)	p
	1	2	3	4		
Self perception						
Norwicki-Strickland	-2.5	-1.9	-1.8	-5.2	1.4822	0.2242
Internal External Scale					(3, 97)	
Marlow Crowne Social	-27.0	-19.0	-19.0	-33.9	11.065	0.0000
Desirability Inventory					(3, 78)	
Abel & Becker	17.6	16.1	9.7	4.2	2.4775	0.0662
Cognition Scale					(3, 92)	
Sexual attitudes, beliefs, and fantasies						
Hostility Towards	-3.0	-2.8	-1.7	-4.1	1.8554	0.1420
Women Scale					(3, 100)	
Rape Myth Acceptance	-10.1	-9.2	-8.8	-10.4	0.5502	0.6492
Scale					(3, 95)	
WSFQ - Exploratory	-4.6	-6.8	-2.7	-3.6	0.6345	0.5947
Scale					(3, 91)	
WSFQ - Intimacy Scale	-2.2	-0.4	2.4	0.4	0.4563	0.7135
					(3, 91)	
WSFQ - Impersonal	-3.0	-6.3	-2.9	-2.8	1.6440	0.1848
Scale					(3, 91)	
WSFQ - Sado/	-1.9	-0.9	-0.7	-1.6	1.0976	0.3543
Masochistic Scale					(3, 91)	

Table 2.42: Clinical thresholds for each of the psychometric tests

Test	Threshold	Interpretation
Beck Depression Inventory	> 9	Depression present*
STAI – State anxiety	>37	Currently anxious
STAI – Trait anxiety	> 40	Typically anxious
STAXI – State anger	> 15	Presently angry
STAXI - Trait anger	> 15	Typically angry
STAXI - Anger expression	> 15	Externalises, acts out anger
STAXI - Anger suppression	> 15	Suppresses, internalises anger
STAXI - Anger control	< 20	Shows poor anger control
Social Self Esteem Inventory	< 130	Shows low social self esteem
Assertion Inventory - Discomfort	> 96	High discomfort when acting assertively
Assertion Inventory - RP	> 105	Low probability of responding assertively
Fear of Intimacy Scale	> 100	Shows fear of intimacy
University of California Loneliness Scale	> 45	Has experiences and emotions associated with loneliness
Social Avoidance & Distress Scale	> 14	Indicates social avoidance and distress
ANSIE	> 15	Believes that external factors control events
Marlow Crowne SDI	> 15	Demonstrates a “faking good” response style
Abel & Becker Cognition Scale	< 100	Presence of cognitive distortions
Hostility Towards Women Scale	> 6	Shows hostility towards women
Rape Myth Acceptance Scale	> 35	Shows acceptance of rape myths
WSFQ - Exploratory Scale	> 8 (mean)	Shows greater than average tendency to use exploratory sexual fantasies
WSFQ - Intimacy Scale	> 17 (mean)	Shows greater than average tendency to use intimate sexual fantasies
WSFQ - Impersonal Scale	> 7 (mean)	Shows greater than average tendency to use impersonal sexual fantasies
WSFQ - Sado/ Masochistic Scale	> 2 (mean)	Shows greater than average tendency to use sado-masochistic sexual fantasies

*Scores above this can be further delineated into mild, moderate and severe

Table 2.43: Percentage of each cluster with scores beyond the clinical threshold for psychometrics measuring emotional functioning pre and post treatment

Test	Admin	Cluster			
		1	2	3	4
Beck Depression Inventory	Pre	78.8	41.2	36.0	84.6
	Post	42.3	16.7	17.6	45.0
	p	0.0500	0.1803	0.2130	0.0062
State Trait Anxiety Inventory - State	Pre	56.8	21.1	37.0	61.5
	Post	33.3	5.6	11.5	57.7
	p	0.0431	0.1934	0.0399	0.7697
State Trait Anxiety Inventory - Trait	Pre	70.3	21.1	33.3	80.8
	Post	41.7	33.3	11.5	61.5
	p	0.0185	0.4159	0.0739	0.1354
State Trait Anger Inventory - State	Pre	19.4	10.5	3.7	23.1
	Post	8.6	0.0	0.0	7.7
	p	0.2298	0.6732	0.3077	0.1414
State Trait Anger Inventory - Trait	Pre	91.9	68.4	33.3	42.3
	Post	71.4	33.3	34.6	34.6
	p	0.0240	0.0404	0.8785	0.6063
State Trait Anger Inventory - Expression	Pre	64.9	57.9	18.5	23.1
	Post	62.9	50.0	26.9	26.9
	p	0.8602	0.6285	0.4917	0.7405
State Trait Anger Inventory - Suppression	Pre	75.0	52.6	46.2	76.9
	Post	65.7	33.3	23.1	50.0
	p	0.4083	0.2279	0.1498	0.0485
State Trait Anger Inventory - Control	Pre	54.1	21.1	14.8	23.1
	Post	45.7	27.8	11.5	15.4
	p	0.4997	0.6234	0.7509	0.4656
Social Self Esteem Inventory	Pre	86.1	21.1	66.7	100.0
	Post	63.9	16.7	32.0	80.8
	p	0.0346	0.7587	0.0149	0.0235

Table 2.44: Percentage of each cluster with scores beyond the clinical threshold for psychometrics measuring deficits in interpersonal skills and self-perception pre & post treatment

Test	Admin	Cluster			
		1	2	3	4
Interpersonal skills					
Assertiveness Inventory - Discomfort	Pre	47.8	20.0	31.3	61.5
	Post	37.5	0.0	0.0	33.3
	p	0.5397	0.1656	0.0749	0.1961
Assertiveness Inventory - Response Probability	Pre	61.1	36.8	59.3	84.6
	Post	44.4	27.8	30.8	73.1
	p	0.1531	0.5632	0.0458	0.2932
Fear of Intimacy Scale	Pre	40.6	31.6	25.9	69.2
	Post	41.2	0.0	19.2	46.2
	p	1.0000	0.0127	0.5449	0.0997
University of California Loneliness Scale	Pre	62.5	12.5	24.0	72.7
	Post	30.6	11.1	7.7	50.0
	p	0.0103	0.8587	0.1242	0.0945
Social Avoidance & Distress Scale	Pre	69.6	18.2	23.1	100.0
	Post	50.0	0.0	0.0	66.7
	p	0.2800	0.5283	0.3726	0.1022
Self perception					
Norwicki-Strickland Internal External Scale	Pre	57.1	26.3	18.5	69.2
	Post	40.0	22.2	7.7	36.0
	p	0.1593	0.7777	0.2483	0.0223
Marlow-Crowne Social Desirability Inventory	Pre	40.5	47.4	81.5	80.8
	Post	71.9	75.0	91.7	76.0
	p	0.012	0.1018	0.2989	0.6656

Table 2.45: Percentage of each cluster with scores beyond the clinical threshold for psychometrics measuring sexual attitudes, beliefs and fantasies pre and post treatment

Test	Admin	Cluster			
		1	2	3	4
Abel & Becker Cognition Scale	Pre	8.3	5.3	0.0	3.8
	Post	0.0	0.0	0.0	0.0
	p	0.1068	0.3711	1.0000	0.3173
Hostility Towards Women Scale	Pre	89.2	63.2	37.0	84.6
	Post	77.8	33.3	30.8	52.0
	p	0.2089	0.0765	0.6469	0.0142
Rape Myth Acceptance Scale	Pre	77.4	47.4	44.4	65.4
	Post	44.4	22.2	15.4	38.5
	p	0.0079	0.1196	0.0251	0.0664
WSFI - Exploratory	Pre	61.1	63.2	29.6	38.5
	Post	38.2	18.8	13.6	16.0
	p	0.0586	0.0102	0.1908	0.0727
WSFI - Intimacy	Pre	80.6	73.7	51.9	46.2
	Post	70.6	75.0	59.1	56.0
	p	0.3300	0.9465	0.6264	0.4785
WSFI - Impersonal	Pre	69.4	68.4	55.6	57.7
	Post	41.2	25.0	27.3	28.0
	p	0.0223	0.0161	0.0470	0.0356
WSFI - Sado-masochistic	Pre	55.6	36.8	33.3	19.2
	Post	35.3	18.8	18.2	16.0
	p	0.0825	0.2497	0.2413	0.7794

2.3.7 Part 2 Discussion

The two sets of results reported above provide a comprehensive picture of the changes that occurred for each of the clusters during treatment. Results of the study indicate that changes on six of the 23 psychometric tests administered pre and post treatment produced significantly different results for the four clusters. It is evident that the clusters responded differently to treatment. The results will be discussed in terms of changes in emotional functioning, interpersonal skills, self-perception and sexual beliefs, attitudes and fantasies.

Changes in emotional functioning

Table 2.40 indicates that all the clusters reported lower levels of depression at the end of treatment although they do not differ significantly in the overall amount of reduction. Table 2.43 indicates that members of Clusters 1 and 4 were significantly less likely to show evidence of depression at the end of treatment.

Table 2.40 indicates that all clusters reported lower levels of state anxiety at the end of the programme and that they differed significantly in the extent to which their anxiety reduced. Cluster 3 showed the greatest reduction, followed by Cluster 1. Cluster 4 showed the next greatest decrease. Cluster 2 showed the least decrease. Table 2.43 indicates that the changes in scores for Clusters 1 and 3 translated into significant reductions in the proportion of their members who would be considered anxious at the time of testing. Table 2.40 shows that all but Cluster 2 reduced their overall tendency to experience anxiety. They did not differ significantly in the reduction of trait anxiety however. Table 2.43 indicates that the reductions were sufficient for Clusters 1 and 2 to have significantly fewer members considered to be typically anxious at the end of treatment.

Examination of the STAXI results suggests a complex picture of how the clusters altered their management of anger as a result of treatment. Table 2.40 shows that all clusters reported lower levels of state anger at the end of the programme but did not differ in the amount by which this reportedly reduced. Table 2.43 shows that none of the Clusters had significant reductions in the number of members considered to be currently angry. The clusters did not vary in the amount of trait anger they reported between pre and post assessments but the changes were sufficient to move significant proportions of Clusters 1 and 2 out of the range of being typically angry. All clusters showed reductions in the extent to which they suppress anger. It was interesting that Clusters 3 and 4 showed slight increases in their tendency to act out anger while Clusters 1 and 2 showed reductions in this tendency. This suggests that Clusters 1 and 2 moved to a more moderate or modulated means of expressing anger while Clusters 3 and 4 were more likely to express anger than suppress it at the end of treatment. Only the reduction in anger suppression in Cluster 4 led to significantly reduced numbers of cluster members failing below the threshold. Finally regarding anger all clusters except for Cluster 3 showed increases in their ability to control anger although the differences between them were not significant. None of the clusters showed a significant increase in the proportion of their members able to demonstrate satisfactory anger control.

Table 2.40 indicates that all four clusters reported increases in social self-esteem. Cluster 3 showed the greatest improvement closely followed by Cluster 4. Cluster 1 showed the next greatest improvement whereas Cluster 2 showed minimal increases. Consistent with this Table 2.43 indicates that Clusters 1, 2 and 4 showed significant reductions in the percentage of their members who show evidence of low self-esteem. Consistent with its position on the interpersonal circle, Cluster 2 only had 21 % of its members reporting low self-esteem to start with, and the reduction from this was not significant.

Overall members of Cluster 1 made the greatest improvements in their emotional functioning with members showing reductions in problems on five of the nine measures. Members of Cluster 4 improved on three of the measures and members of Cluster 3 improved on two of the measures. Members of Cluster 2 only improved on one measure, their perception of being typically angry. They appear from this to be a relatively emotionally robust group compared to the other clusters.

Changes in Interpersonal Skills

Table 2.40 indicates that all the clusters showed a reduction in the discomfort they experience when required to act assertively and that they vary significantly in the amount that they changed in this respect. Cluster 4 showed the greatest decrease, followed relatively equally by Clusters 2 and 3. Cluster 1 showed the smallest decrease in this measure. Although considerable the changes on this measure did not translate through to significant reductions in the number of cluster members reporting discomfort at the prospect of acting assertively. All clusters showed a decrease in the probability that they would *not* act assertively. The changes scores were not significantly different however they were sufficient for a significant reduction in the percentage of Cluster 3 members with a low probability of acting assertively.

All clusters showed a reduction in reported fear of intimacy and varied significantly in the amount of change they demonstrated. Cluster 2 showed the greatest reduction followed by cluster 4. Clusters 1 and 3 showed only small average reductions. These translated (see Table 2.44) into Cluster 2 showing a significant reduction in the number of its members evidencing a fear of intimacy. At the completion of the programme none of the cluster met the threshold for this problem.

All clusters showed a reduction in experiences and emotions related to loneliness. The clusters did not vary significantly in the extent they changed on this. Cluster 1, however, did show a

significant reduction in the percentage of members reporting loneliness. Cluster 4, which shares the low sociability hemisphere of the interpersonal space, reported high proportions of loneliness prior to treatment. At the end of treatment 50 percent of the cluster still reported issues with loneliness.

Clusters 1, 3 and 4 showed slight reductions in their tendency to be socially avoidant. An interesting finding was that Cluster 2 showed a very slight increase in this measure suggesting that some members may have moderated aspects of their gregarious presentation. The differences in change measures were not significant however. None of the clusters showed significant reduction in the percentage of members reporting social avoidance and distress. Again Clusters 1 and 2, showed the greatest number of members reporting social avoidance. All of Cluster 4 met the criteria prior to treatment and although this reduced to two thirds following treatment this was not statistically significant.

No single cluster stands out particularly in terms of changes to interpersonal skills. Predictably, given their occupation of the low sociability hemisphere of the interpersonal circle Clusters 1 and 4 showed the greatest pre-treatment need in this area with the only real improvement being in terms of Cluster 1's reduction in loneliness. Large percentages of their members retained needs in the areas assessed following treatment.

Changes in Self-perception

Inspection of Table 2.41 reveals that all of the clusters showed a decreased tendency to attribute the control of events to external factors. The extent to which the clusters changed on this was not significant. Members of Cluster 4 were significantly less likely to make this attribution at the end of treatment compared to the beginning (see Table 2.44). Again they had the greatest scope for movement here with more than 69% of members exhibiting an external locus of control prior to treatment.

All four clusters showed reductions in the extent to which they are manage public behaviour in a way that is socially desirable, as measured by the Marlow-Crowne Social Desirability Scale, and differed significantly in the extent of this change. Cluster 4 showed the greatest reduction on this measure, followed by Cluster 1. Clusters 2 and 3 showed the least reduction. Table 2.44 indicates that these changes translate into a significant increase in the number of Cluster 1 members exhibiting a "faking good" response style. It is notable that before treatment 81.5% of Cluster 3

showed this tendency and that this increased to more than 91% following treatment. This is consistent with their MCMI profile as being acutely aware of social conventions. Only Cluster 4 showed reduced numbers of its members exhibiting this characteristic. This test is utilised by programme clinicians as a validity test to gauge the test-taking attitude of programme participants. It suggests that, most particularly for Cluster 1, some of the improvement noted above might be, in part, a reflection of them having learned how to respond in ways that are socially acceptable, masking or disguising issues or aspects of themselves that others would find reprehensible.

Changes in sexual attitudes, beliefs, and fantasies

Given the nature of the offences that programme participants committed this is a key area of inquiry for clinicians working with them.

All clusters displayed a decrease in reported deviant cognitions as measured by the Abel & Becker Cognitions Scale. Cluster 1 showed the greatest improvement on this measure followed by Cluster 2, then Cluster 3. Cluster 4 showed the least improvement. However none of these reductions were statistically significant. None of the groups showed significant decreases in the percentage of members showing distorted cognitions. All clusters showed a reduction in their reported hostility towards women, as measured by the Hostility Towards Women Scale. Cluster 4 showed the greatest reduction, followed by Cluster 1, then Cluster 2, then Cluster 3. Again, however, the clusters were not significantly different in their reductions. Cluster 4 showed a significant decrease in the number of members displaying hostility towards women (Table 2.45).

All clusters showed reduced endorsement of myths regarding rape (Table 2.41). For Clusters 1 and 3 this translated into significant reductions in the proportion of members displaying this characteristic.

The Wilson Sex Fantasy Inventory measures the frequency that respondents engage in four themes of sexual fantasy. All clusters reported a reduction in their level of fantasy involving exploratory, impersonal, and sado-masochistic themes. Clusters 1 and 2 also showed reductions in their use of intimate fantasies despite programme participants being encouraged to use fantasies of such themes. Clusters 3 & 4 showed small increases in their use of fantasies involving intimacy. Cluster 2 showed significant reductions in the percentage of members reporting use of exploratory fantasies. All clusters showed significant reductions in the percentage of their members engaging in impersonal fantasies.

Overall the results suggest that the four clusters varied significantly in their reduction of state anxiety, their tendency to suppress or internalise anger, their self-esteem, their likelihood of experiencing distress when behaving assertively, their fear of intimacy, and the likelihood that they will behave publicly in a socially desirable manner. Results of the ANCOVA of change scores indicate that the clusters' differential response to treatment is reflected in approximately a quarter of the measures reported. Results for two further scales approached but did not achieve statistical significance. Results of several other scales, although not statistically significant are noteworthy because the direction of score changes are not uniform across the four clusters.

2.3.8 Conclusions

The first part of this study showed that clinical profiles of each the clusters could be developed on the basis of their psychometric results that were largely consistent with the clusters' match to Blackburn's four types and their placement on the interpersonal circle. The second part of the study indicated that the four clusters had varying responses to treatment. At the end of the first part of this study Cluster 1 was described as standing out for its level of pathology. The second part of this study indicated that they made substantial improvements in their emotional functioning, more so than the other groups. They however made little gain in terms of key interpersonal skills deficits often associated with sexual offending against children (assertiveness, intimacy, social confidence). Neither did they make particularly strong gains on attitudes, beliefs and fantasies that could support offending although they did drop in their reported acceptance of rape myths and use of impersonal fantasies. Given their starting point of showing the greatest level of deviancy on these scales this is concerning.

Cluster 2 entered treatment in a relatively robust form with their main difficulties related to hostility. They are the most socially confident and able cluster, bearing little resemblance to the "typical" child molester referred to in Chapter 2. At the end of treatment they showed a significant decline in the number of members who report feeling typically angry. They also showed a further reduction in their already low tendency to fear intimacy. They did not show statistically significant reductions in the number of members reporting hostility to women and rape myth acceptance.

Cluster 3 was described as "conventional" in the first part of this study, with needs in the areas of social confidence and esteem. Members did show an improvement in the levels of state anxiety

and social self esteem after treatment. They also showed improvements in their likelihood of acting assertively. They had relatively low scores on tests measuring problematic beliefs, attitudes and fantasies but showed a reduction in their acceptance of rape myths. For this group then, treatment appeared to have neatly targeted their deficits.

In terms of their profile on entering the programme, and their location on the interpersonal circle reflecting low hostility and low sociability Cluster 4 perhaps come closest to reflecting the “typical” child molester discussed in the Introduction. They are very similar to Cluster 1 in terms of their emotional functioning but did not improve on these to the same extent. Further, they showed no significant improvements in interpersonal skills with high percentages of members continuing to report low probabilities of acting assertively, fearing intimacy, experiencing loneliness and social avoidance and distress. They did show reduced hostility towards women and, as with all the other clusters, a reduction in their reliance on impersonal sexual fantasies. From this it would be reasonable to conclude that they made the least progress of all the clusters during treatment.

This study has shown that the four clusters derived from Study 1 did not differ on a considerable range of demographic variables obtained routinely as part of their pre-treatment assessed. This apparent homogeneity however disguises four quite different profiles when the psychometric tests scores of the clusters are compared. Moreover the clusters appear to respond to treatment in quite different ways and, possibly, make variable progress in treatment.

This has implications for clinicians and for programme designers who are faced with accommodating a range of needs in a necessarily finite and structured treatment package. The results of this study indicate that some needs may be insufficiently targeted for some individuals and other needs may be addressed unnecessarily.

A key feature of best practice treatment for child molesters is the close attention that needs to be paid to the actual offending behaviour and the events that precede it. Neither Study 1 nor Study 2 consider the actual offending behaviour of the members of the four clusters. Study 3, presented next, will examine the offending patterns of the four clusters to determine if their personality profile is reflected in the types of offending they commit, the extent of their offending, and the risk they pose for further offending.

2.4 Study 3: Comparison of Clusters on Offending, Risk of Re-offending and Actual Re-offending

2.4.1 Introduction to Study 3

Study 1 confirmed that four clusters, that bear resemblance to groups found in other offender populations, could be located in a child molester population. Study 2 showed that these groups did not vary in terms of many demographic variables but did vary on a range of measures used to assess treatment needs of child molesters. They also varied in terms of their response to treatment. The present study turns now to compare the offending committed by the four clusters. This is a further step in an exploratory examination of the utility of a personality-based typology of child molesters. This study is in three parts. Part 1 uses information from the criminal records of offenders to compare the clusters on a range of variables related to their offending. These include the age and gender of their current and typical victims, and their relationship to their victims. While the evidence is not at a point to develop specific hypotheses it may be possible to discern some differences between the clusters in their selection of victims. It is possible, for instance, that member of Cluster 4 (Inhibited in Blackburn's terms) are most like preferential child molesters and may therefore be more likely to have younger victims, and victims of both genders. It might also be expected that i) their offending was more likely to have started earlier than other offenders, ii) they have offended for a longer period, and iii) they have had more victims than other clusters.

Details of the offenders' current and previous offending are also examined in the first part of this study. Again, while it is premature to develop specific hypotheses it would be reasonable to expect offenders from Clusters 1 and 2 (Secondary and Primary Psychopaths) who occupy the high hostility half of the interpersonal space to be more likely to have committed offences reflecting aggression and violence. They may for instance be more likely to have committed penetrative sexual offences (sexual violation, rape, sodomy, unlawful sexual connection) than other offenders. They could also be expected to be more likely to use violence in their offending (threats, weapons, actual violence, and injury to victim). Concomitantly those in the lower hostility half of the interpersonal space might be more likely to have committed non-penetrative offences (indecent assault).

Part 1 also considers the conviction history of each cluster. Again it is premature to present firm hypotheses but it is possible that any differences in preference discussed above are born out in

individuals' conviction histories. It could be reasonably expected that those in the hostile half of the interpersonal circle have more convictions for non-sexual offences.

Many of the variables discussed so far are static measures that have recently been applied in efforts to predict of re-offending. As discussed in the literature review the ability to assess the risk of future offending is very important for prioritising interventions and developing management plans for offenders. Measures such as the PCL-R have proven effective in the prediction of re-offending amongst violent offenders but the low average score in this device amongst child molesters (discussed in Chapter 4 of the Introduction) limits its utility in this population. Part 2 of this study compares the clusters obtained in the four-cluster solution in Study 1 in terms of risk of re-offending on the STATIC-99 (see Chapter 2 of the Introduction). In Part 3 the clusters are compared in terms of their actual re-offending following release from the programme and custody.

2.4.2 Method

For the first part of this study, details of offenders' criminal histories were examined and information coded in the demographic questionnaire (see Appendix 1) for analysis. Details on each offender were obtained for analysis on:

- The victim(s): gender, age, relationship to the offender
- The nature offence
- The offender's history of offending
- The history of legal sanctions the offender has been subjected to

Continuous demographic and offence related variables were subjected to analysis of variance (ANOVA) to identify differences between the clusters obtained in the four-cluster solution in Study 1. Discrete variables were analysed using Chi². For the second part, sufficient data to fully score the STATIC-99 were located for 104 of the 110 offenders in the sample. Each offender was rated on the ten items of the STATIC-99. Clusters were compared on item scores and total score. The items, codes and weightings for the STATIC-99 are given in Table 2.46.

For the third part of the study criminal records for each offender in the sample were obtained from the central crime database. 104 of the 110 were released from prison between January 1994 and September 1997. The remaining six were serving long or indeterminate sentences. At the time of analysis those who had been released had a mean time at large of 1904 days (5.22 years). This constitutes a reasonable follow-up period.

Table 2.46 Scoring criteria for STATIC-99

Risk factor	Codes		Weight
1) Prior sex offence	Charges	Convictions	
	1-2	1	1
	3-5	2-3	2
	6+	4+	3
2) Prior sentencing dates (excluding index)	4 or more		1
3) Any conviction for non-contact sex offence	Yes		1
4) Index non-sexual violence	Yes		1
5) Prior non-sexual violence	Yes		1
6) Any unrelated victim	Yes		1
7) Any stranger victim	Yes		1
8) Any male victim	Yes		1
9) Offender Age	Aged 18 – 24.99		1
10) Offender single (Ever lived with lover for at least two years?)	No		1

2.4.3 Results

The clusters did not differ in the average age of victims for the offences that members were serving sentences ($F=16$, $p=0.9225$). The average age of victims for each cluster is as follows: Cluster 1: 9.4 years; Cluster 2: 9.8 years; Cluster 3: 10.1 years; and Cluster 4 9.2 years.

The clusters were compared on their preferred victim age, based on available documentation, the offenders' self report and plethysmographic assessment. Where offenders clearly offended against victims in a variety of age ranges their preference was recorded as indiscriminate. The clusters were compared on the gender(s) of the victims in the offenders' current offence. In several cases offenders were convicted of offences against both genders. The clusters were compared on their preferred victim gender. Gender preference was determined on the basis of available documentation, the offenders' self report and plethysmographic assessment. Finally clinicians recorded information regarding the relationship of each offender to their victims. Offenders with multiple victims may have been counted in more than one category. The results for each of these comparisons are reported in Table 2.47.

Table 2.47 Victim preference for members of each cluster

	Cluster				Chi ²	df	p
	1	2	3	4			
Preferred Victim Age							
0-5 years	3	0	1	0	11.5535	9	0.2397
6-11 years	8	7	7	14			
12-15 years	20	10	15	8			
Indiscriminate	6	2	4	4			
Gender of victim in current offence for each offender							
Male	5	2	7	6	6.4423	6	0.3755
Female	25	16	17	16			
Both	6	0	3	4			
Preferred gender of victim for each offender							
Male	6	2	7	6	2.1730	6	0.9031
Female	28	16	19	19			
Both	2	1	1	1			
Relationship to victim for each offender							
Natural father	9	6	8	7	0.4112	3	0.9379
Step/adopted father	11	3	9	3	4.8904	3	0.1800
Foster/defacto father	2	2	2	1	0.9269	3	0.8189
Grandfather	3	1	0	1	2.3986	3	0.4939
Uncle	2	1	3	1	1.3810	3	0.7100
Brother/ stepbrother	5	0	1	2	4.1084	3	0.2500
Cousin/ other relative	1	0	0	0	1.9640	3	0.5799
Unrelated but known	11	7	9	12	1.8868	3	0.5962
Unrelated & unknown	0	1	1	0	2.9409	3	0.4008

The clusters were compared on the convictions they were serving a sentence for, the nature of the current offending and the length of the sentence they had received for their current offence.

Clinicians recorded details of the offence for which the offender was serving a prison sentence at the time of their treatment in the demographic questionnaire. All current convictions were coded so those with multiple current convictions were coded in more than one offence type. Clinicians

recorded some additional details of the nature of the current offence. This information was informed by official documents and information obtained from the offenders during their time in the programme. The results for both of these aspects of cluster members' current offending are reported in Table 2.48. Details of offenders' current sentence length were taken from their criminal records. The clusters did not differ significantly in the average length of sentences they were serving as reported in Table 2.49. Details of the sexual offending history for each cluster member were obtained over the course of their treatment. Heavy reliance was placed on official documentation but this was revised when offenders' self-disclosure indicated it was inaccurate. Generally this occurred when official records underestimated some aspect of the offending. The average duration of offending for each cluster is reported in Table 2.50. Again this was determined on the basis of official information, offender self-report and other corroborative sources.

Table 2.48 Current offences for members of each cluster

	Cluster				Chi ²	df	p
	1	2	3	4			
Current Offence							
Sexual Violation / Rape	14	5	4	5	5.1053	3	0.1643
Attempted Sexual							
Violation/ Rape	3	0	0	0	3.4599	3	0.3260
Sodomy	4	3	3	5	1.1524	3	0.7644
Unlawful Sexual							
Connection	9	5	5	6	0.4615	3	0.9273
Indecent Assault	20	10	24	20	11.0730	3	0.0114
Incest	8	2	1	5	4.7125	3	0.1941
Non-sexual offence	0	1	0	0	4.7807	3	0.1886
Details of current offence for members of each cluster							
Involved threats	10	6	3	4	4.0897	3	0.2520
Involved a weapon	3	0	0	0	6.0873	3	0.1075
Involved violence	4	3	0	3	3.8915	3	0.2734
Involved injury to victim	2	0	0	2	3.2075	3	0.3607
Involved alcohol /drugs	12	8	5	6	3.8154	3	0.2821

Table 2.49 Average sentence length for current offence for each cluster

	Cluster				F	p
	1	2	3	4		
					(3, 105)	
Length of current sentence (months)	45	45.4	40.7	41.5	.47	.7026

Table 2.50 Mean duration of sexual offending against children for each cluster

	Cluster				F	p
	1	2	3	4		
					(3, 105)	
Duration (years)	11.7	8.7	12.7	11.8	.33	.8036

The age at which offending starts is important to know in order to understand the aetiology of the offending for an individual. It also is a factor to be considered in risk assessment. Clusters were compared on the number of cluster members whose sexual offending against children started during their teens. The clusters were then compared on the number of child victims of sexual offending estimated for each offender. Heavy reliance was again placed on official documentation but this was revised when offenders' self-disclosure indicated it was inaccurate. Generally this occurred when official records underestimated the number of victims. As a further indication of the extent and nature of offending, consideration was given to legal sanctions incurred for sexual by cluster members for previous sexual and other offending. Clusters were compared on the basis of

- The number of previous convictions for sexual offences
- The number of prison sentences for sexual offences
- The number of previous convictions for other major offences

The results of each of these comparisons are reported in Table 2.51.

Table 2.51 Aspects of sexual offending history for each cluster

Offending Aspect	Cluster				Chi ²	df	p
	1	2	3	4			
Commencement of sexual offending against children prior to age 20							
N commenced pre age 20	16	4	8	11	3.6170	3	0.3059
					F	df	p
Estimated mean number of child victims of sexual offending over offending career							
Mean number of victims	4.7	11.7	5.4	8.4	1.31	(3, 105)	0.2747
Mean number of previous convictions for sexual offences							
Mean previous convictions	0.621	0.789	1.111	0.731	.48	(3, 105)	0.6969
Mean number of previous prison sentences for sexual offences							
Mean prison sentences	0.270	0.263	0.370	0.346	.13	(3, 105)	0.9429
Mean number of previous convictions for other major offences for each cluster							
Mean previous other convictions	2.378	4.316	4.148	1.846	.46	(3, 105)	0.7093

STATIC-99 scores were calculated for each cluster member on the basis of information available from official criminal records and additional information collected routinely as part of the assessment procedure. The clusters were also compared on the separate items of the STATIC-99 and were not found to differ significantly on any of these. These results are not reported separately because they can largely be discerned from the results reported on individual items related to victims, offending and conviction history. The mean total STATIC-99 scores for each cluster are reported Table 2.52.

Table 2.52 Mean total STATIC-99 scores for each cluster

	Cluster				F	p
	1	2	3	4		
Mean total STATIC-99 score (S.D.)	2.09 (1.56)	2.44 (2.04)	2.08 (2.31)	2.32 (2.14)	0.1922	0.9015

Comparison of re-offenders and non-re-offenders

Offenders who completed the Kia Marama programme were followed up after their release and compared on the extent to which they were convicted of further offences. To determine a general picture of the relationship between the personality measure and re-offending the scores on the MCMI of those who re-offended were compared to the scores of those who did not.

Offenders who went on to commit sexual offences, violence offences, general (non-sexual, non-violent) offences, and any offences were identified from the central crime database. The mean MCMI scores of those who re-offended were then compared to offenders who had not gone on to re-offend.

The mean MCMI scores the eight offenders from the sample who were reconvicted for further sexual offences upon release from prison after completing the programme were compared to the mean scores of the offenders who did not go on to commit further sexual offences. The results are presented in Table 2.53 and Figure 2.13.

The mean MCMI scores of eleven offenders went on to commit violent offences were compared to the mean scores of the offenders who did not go on to commit further violent offences. These results are presented in Table 2.54 and Figure 2.14.

The mean MCMI scores for the fourteen offenders who went on to general offences were compared to the mean scores of the offenders who did not go on to commit further general offences. The two groups did not differ significantly on any of the scales hence the results are not reported in a table or figure. Notably however the reconvicted group had a higher score on the Passive-Aggressive scale (mean 69.6) compared to offenders who did not go on to commit general offences (mean 53.7). This difference approached significance ($F=3.7628$, [1, 102], $p=0.0552$).

Finally a total of twenty offenders were convicted of any offence (sexual, violent or general). The MCMI scores for these offenders were compared with the MCMI scores of offenders who were not convicted of any subsequent offence. The results are presented in Table 2.55 and Figure 2.15.

Table 2.53 Mean MCMI scores (SD) for those reconvicted of sexual offences compared to those not reconvicted of sexual offences

MCMI	Not Reconvicted	Reconvicted	F	
Scale	(N=96)	(N=8)	(1, 102)	p
Schizoid	67.5 (25.8)	67.0 (28.5)	0.0031	0.9558
Avoidant	67.9 (27.9)	75.0 (21.6)	0.4884	0.4862
Dependent	71.3 (26.9)	56.4 (33.8)	2.1879	0.1422
Narcissistic	47.0 (23.3)	56.6(26.4)	1.2331	0.2694
Histrionic	54.9 (22.2)	70.9 (17.5)	3.9134	0.0506
Antisocial	58.5 (24.0)	80.0 (12.2)	6.2284	0.0142
Compulsive	55.8 (19.6)	46.3 (14.7)	1.8147	0.1809
Pass-Agg	54.4 (28.9)	73.6 (22.6)	3.3697	0.0693
Schizotypal	57.7 (15.6)	56.6 (11.5)	0.0335	0.8552
Borderline	55.1 (12.8)	59.4 (10.4)	0.8384	0.3620
Paranoid	58.7 (15.4)	65.9 (22.3)	1.5020	0.2232

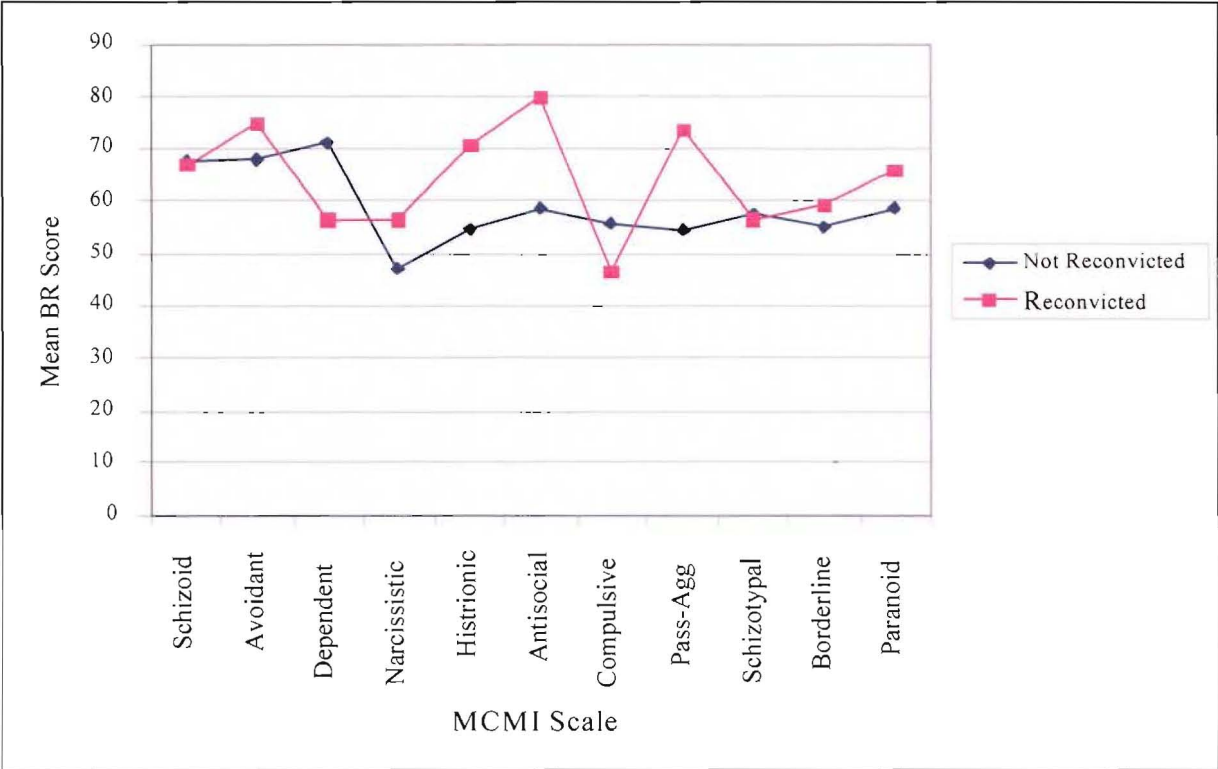


Figure 2.13 Mean MCMI scores for those reconvicted of sexual offences compared to those not reconvicted of sexual offences

Table 2.54 Mean MCMI scores (SD) for those reconvicted of violent offences compared to those not reconvicted of violent offences

	Not Reconvicted	Reconvicted		
MCMI Scale	(N= 93)	(N=11)	F(1, 102)	p-level
Schizoid	68.2 (25.6)	61.6 (28.6)	0.6292	0.4295
Avoidant	68.3 (28.3)	69.6 (20.2)	0.0190	0.8907
Dependent	70.9 (27.4)	64.1 (29.7)	0.5899	0.4442
Narcissistic	46.3 (23.1)	60.3 (24.9)	3.5633	0.0619
Histrionic	55.3 (21.8)	63.2 (25.9)	1.2375	0.2686
Antisocial	59.4 (24.3)	66.5 (21.0)	0.8409	0.3613
Compulsive	56.9 (18.8)	40.1 (18.8)	7.8487	0.0061
Pass-Agg	53.8 (28.7)	73.0 (25.5)	4.5002	0.0363
Schizotypal	58.1 (15.5)	53.4 (12.3)	0.9391	0.3348
Borderline	54.9 (12.6)	59.4 (12.9)	1.1871	0.2785
Paranoid	58.8 16.2)	63.0 (14.6)	0.6806	0.4113

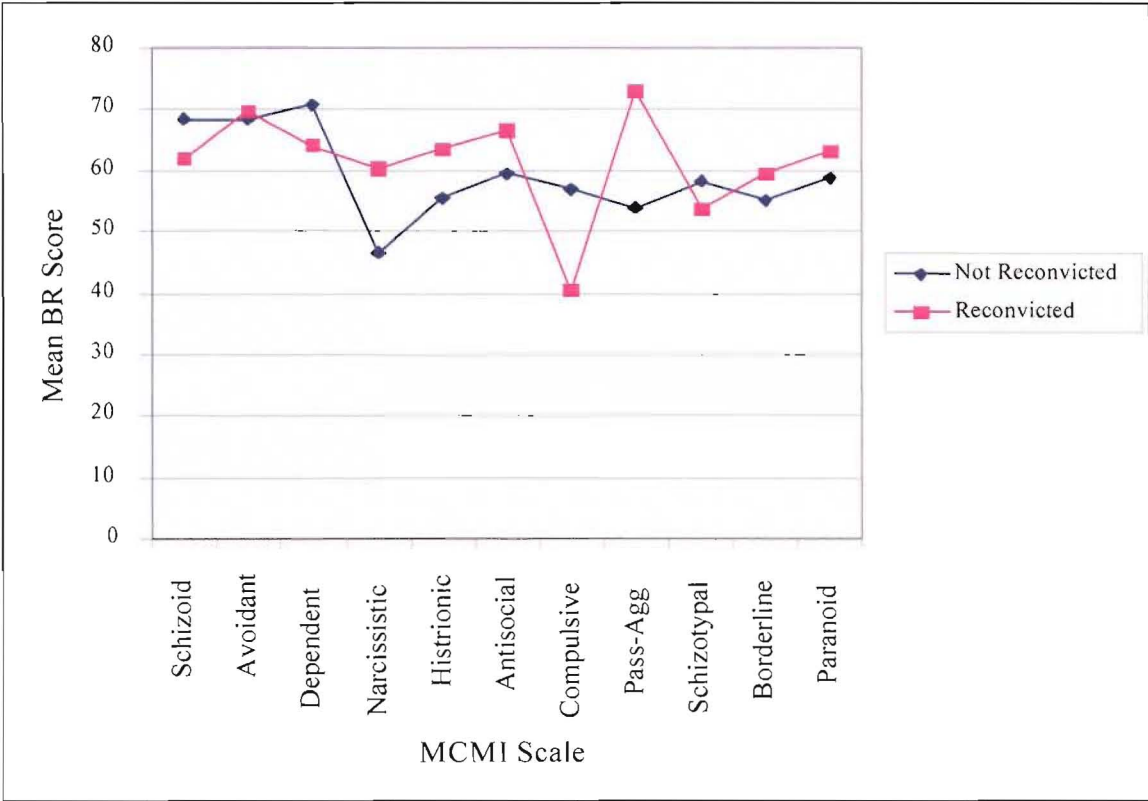


Figure 2.14 Mean MCMI scores for those reconvicted of violent offences compared to those not reconvicted of violent offences

Table 2.55 Mean MCMI scores (SD) for those reconvicted of any offences compared to those not reconvicted of any offence

MCMI Scale	Not Reconvicted	Reconvicted	F(1, 102)	p-level
	(N=84)	(N=20)		
Schizoid	68.9 (25.0)	61.4 (29.2)	1.3810	0.2427
Avoidant	68.7 (28.2)	67.7 (24.8)	0.0214	0.8840
Dependent	72.8 (26.9)	59.2 (28.4)	4.0553	0.0467
Narcissistic	45.9 (23.2)	55.6 (24.1)	2.7617	0.0996
Histrionic	54.3 (22.1)	64.0 (21.8)	3.1196	0.0803
Antisocial	58.7 (24.6)	66.5 (20.4)	1.7067	0.1944
Compulsive	56.3 (18.3)	49.9 (23.4)	1.7857	0.1844
Pass-Agg	53.3 (28.9)	66.8 (26.5)	3.6649	0.0584
Schizotypal	58.5 (15.5)	53.8 (13.7)	1.5278	0.2193
Borderline	55.0 (12.6)	57.3 (12.7)	0.5329	0.4671
Paranoid	59.3 (15.9)	58.8 (16.7)	0.0178	0.8942

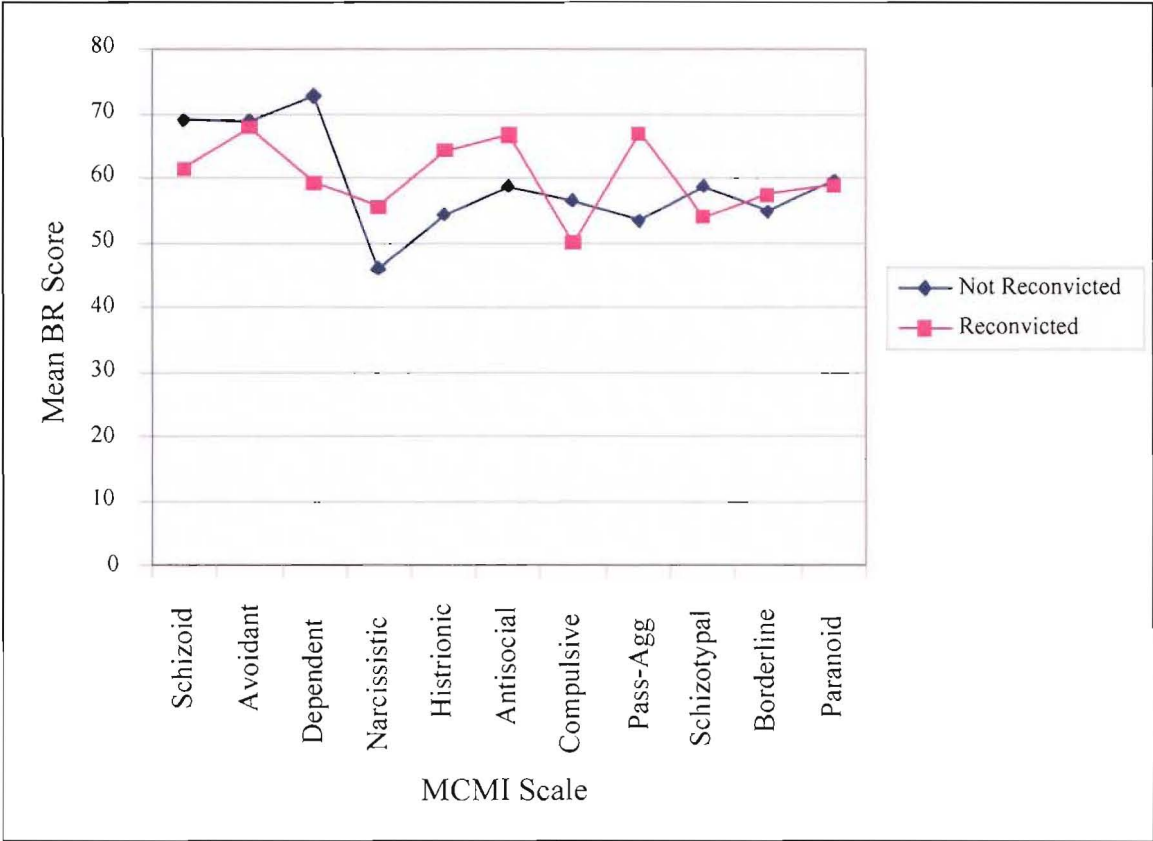


Figure 2.15: Mean MCMI scores for those reconvicted of any offences compared to those not reconvicted of any offence

From the above results it can be seen that differences are evident in the profiles of offenders who go on to commit further offences and those who do not. These results provide a context for the following part of this study in which the four clusters were compared on the extent to which they committed further

- Sexual offences
- Violence offences
- General (non-sexual, non-violent) offences
- Any offences

Three measures were applied to these: the number of offenders in each cluster who went on to commit a further offence, the number of offences they were convicted of the and average time taken to gain the conviction following their release from prison after completing the Kia Marama programme.

Table 2.56 reports the results related to sexual re-convictions. Table 2.57 reports the results related to violent reconvictions. Table 2.58 reports the results related to general reconvictions and table 2.59 reports the results related to any re-convictions.

Table 2.56 Number of offenders reconvicted for sexual offences, number of sexual reconvictions and time take to sexual reconviction for cluster members

	Cluster				Chi ²	p
	1	2	3	4		
(Valid N	35	18	26	25)		
Number of offenders reconvicted of sexual offences per cluster						
N offenders reconvicted	5	2	1	0	5.064	0.1672
					F	p
Mean sexual convictions cluster members were convicted of when they re-offended						
Mean N convictions	0.34	0.33	0.15	0.00	0.9989	0.3967
(SD)	(0.94)	(1.19)	(0.78)	(0.00)	(3, 100)	
Mean time taken following release to be reconvicted of a sexual offence						
Mean days to conviction	994	178	303	0	N/A	
(SD)	(323)	(61)	(0)	(0)		

Table 2.57 Number of offenders reconvicted for violent offences, number of violent reconvictions and time take to violent reconviction for cluster members

	Cluster				Chi ²	p
	1	2	3	4		
(Valid N	35	18	26	25)		
Number of offenders convicted of violent offences after release per cluster						
N offenders reconvicted	5	3	2	1	2.5868	0.45981
					F	p
Mean number of violent convictions when re-convicted						
Mean N convictions	0.29	0.28	0.08	0.04	1.4936	0.2209
(SD)	(0.75)	(0.67)	(0.27)	(0.20)	(3, 100)	
Mean time taken following release to be convicted of a violent offence						
Mean days to conviction	753	1312	836	593	0.4567	0.7210
(SD)	(395)	(963)	(1092)	(0)	(3, 7)	

Table 2.58 Number of offenders reconvicted for general offences, number of general reconvictions and time take to general reconviction for cluster members

	Cluster				Chi ²	p
	1	2	3	4		
(Valid N	35	18	26	25)		
Number of offenders convicted of general offences after release per cluster						
N offenders reconvicted	6	4	2	2	2.9760	0.3954
					F	p
Mean number of general convictions when re-convicted						
Mean N convictions	0.77	2.47	0.58	0.16	2.6174	0.0553
(SD)	(2.62)	(4.96)	(2.04)	(0.55)	(3, 99)	
Mean time taken following release to be convicted of a general offence						
Mean days to conviction	1071	726	558	818	0.7366	0.5538
(SD)	(529)	(376)	(700)	(245)	(3, 10)	

Table 2.59 Number of offenders reconvicted for any offences, number of any reconvictions and time take to any reconviction for cluster members

	Cluster				Chi ²	p
	1	2	3	4		
(Valid N	35	18	26	25)		
Number of offenders convicted of any offences after release per cluster						
N offenders reconvicted	9	6	3	2	6.2725	.09910
					F	p
Mean number of any convictions when re-convicted						
Mean N convictions	1.40	3.06	0.81	0.20	2.6014	0.0563
(SD)	(3.60)	(5.45)	(2.84)	(0.71)	(3, 99)	
Mean time taken following release to be convicted of any offence						
Mean days to earliest	868	661	908	619	0.3303	0.8035
conviction	(SD) (385)	(584)	(783)	(37)	(3, 16)	

2.4.4 Discussion

The clusters did not differ in terms of their selection of current victims or in terms of their observed preference for victims over time in respect to age or gender. The speculation that Cluster 4, being in many respects most like preferential child molesters, would be more likely to have younger victims, and victims of both genders was not borne out. In fact the groups were nearly uniform in the average age of their victims. Clusters 1 and 3 showed perhaps the greatest deviancy in terms of victim age with all offenders who had offended against victims aged five or younger belonging to these clusters. Cluster 4 did, proportionally, have the greatest likelihood of offending against victims aged 6-11 but these trends were not significant. The clusters did not vary in their relationships to victims. Cluster 1 and 4 had proportionately the highest number of members whose sexual offending commenced before the age of 20 but they did not differ significantly from the other groups in this regard. Neither did the clusters vary in terms of the duration of their offending or the number of victims over their career.

When details of offenders' current and previous offending were examined only one significant difference emerged. Members of Clusters 3 and 4 were more likely to have been convicted of Indecent Assault as their current offence. This is consistent with the expectation that those in the

low hostility half of the interpersonal circle should be more likely to commit less intrusive (non-penetrative) offences but the second, and arguably more convincing, half of this expectation (that those in the hostile half of the interpersonal space would be more likely to have committed intrusive offences) was not borne out by the results.

The general findings are not consistent with previous research. Blackburn (1975) for instance found that Primary and Secondary Psychopaths have criminal convictions at an earlier age than the Controlled and Inhibited groups but Primary Psychopaths have the most convictions for assaultative crimes.

Moreover the distinction expected on the basis of hostility is not borne out by a limited consideration of the current offence. The clusters did not differ in terms of their use of threats, weapons, or violence, or in terms of their offending resulting in physical injury to a victim. Clusters 1 and 2 (Secondary and Primary Psychopaths) were not more likely to have used violence in their offending.

The clusters did not differ in terms of their current sentence length, the mean number of previous convictions or prison sentences for sexual offences or the mean number of convictions for offences other than sexual.

The four clusters did not differ in terms of their estimated risk of re-offending using the STATIC-99. What were noteworthy however were the generally low scores that all the clusters gained on the STATIC-99. The mean for the total sample was 2.20 and the standard deviation was 1.97; the median and modal STATIC-99 scores were both 2. This suggests that at the time that the subjects of this study attended the programme, Kia Marama was selecting predominantly low risk offenders. With such a small spread of risk, the prospect of distinguishing any subgroups is considerably diminished than if the sample had been distributed over the entire range of risk.

Even with the reasonable follow-up time used in the reconviction analysis few differences emerged between the four clusters in terms of actual reconvictions. It is likely that the low risk of offenders in the sample was reflected in these reconviction rates and the prospects of obtaining different re-offending rates between the clusters must be limited. In fact only 8 of the 110 offenders in the sample had been reconvicted for a sexual offence after a mean time at large of more than five

years. Added to this is the likelihood that those with high risks of re-offending are likely to be serving indeterminate sentences and may not have even been released from prison.

Although the results did not reach significance Cluster 1 has the greatest number of offenders reconvicted for a sexual offences. Five of the eight offenders reconvicted for sexual offences came from Cluster 1. Cluster 1 and 2 lead in terms of mean number of convictions at reconviction. Cluster 2 appears to have the shortest duration to re-conviction. The clusters did not vary significantly in terms of their violent or general offending following treatment. When any conviction following release is considered, differences between the clusters offending approached significance. This is in part of reflection of the greater base rate when *any* offending is considered. A quarter of Cluster 1 and one third of Cluster 2 went on to commit any offence compared to 11 and two percent respectively of Clusters 3 and 4. This is consistent with earlier studies showing primary and secondary psychopaths to be more prone to criminality.

Consideration of the MCMI profiles of those who went to commit a range of offences, compared to offenders in the sample who did not, provides some illumination of the role that personality plays in offending. Offenders who went on to commit further sexual offences had significantly higher scores on the Antisocial scale than those offenders who did not re-offend sexually. Their higher scores on two further scales Histrionic and Passive-Aggressive approached significance.

Clinically, the profile of the re-offenders looks most like the profile of Cluster 1 with high points on Avoidant, Antisocial, and Passive-Aggressive scales. Choca (1992) described this personality pattern as characterising individuals who have conflictual, avoidant and competitive traits. The predominant feature of their personality is their ambivalence when relating to others. They may have low self-esteem which leads them to be sensitive to negative feedback from others and to expect rejection in social situations. They experience interpersonal relationships as anxiety provoking and uncomfortable and are likely to be distant, apprehensive and superficial in social situations. Their ambivalent way of relating to others appears to be their way of adjusting to interpersonal conflicts but they may appear to be obstructionistic and negativistic in a distant sort of way. They may not resolve the objections they have about aspects of their lives leaving an impression that they are “dragging their feet”. Choca noted that they might be quite ambivalent about therapy and present as uncomfortable during sessions.

A similar, although not identical, pattern emerged when the eleven offenders who went on to commit violent offences were compared with those who did not. The re-offending group had a significantly higher mean score on the Passive-Aggressive scale and a significantly lower score on the Compulsive scale. Descriptively the profile is similar to that provided above for the sexual re-offenders (and in fact four offenders are common to each group, that is they were reconvicted for both sexual and violent offences). The fourteen offenders who were reconvicted for general offending did not differ significantly from the non-re-offending group on any of the scales although the differences in scores on the Passive-Aggressive scale approached significance. Topographically their profile is similar to the other re-offending profiles.

When the twenty offenders who had been reconvicted for any offence were compared to those with no reconvictions only their scores on the Dependent scale were significantly different (lower) than the non-re-offending group.

Overall then it appears that hostility, reflected in the Antisocial and Passive-Aggressive scales is the strongest predictor of re-offending amongst the personality attributes considered by the MCMI. It is possible that some personality attributes, such as dependence, offer some protection to the risk of re-offending. Alternatively it may be that those who have gone on to re-offend within the window of time considered are of one type and that other types re-offend at a slower rate.

Returning to consider the clusters that are central to this study, is it possible that real differences in the way cluster members conducted themselves during their offending are not detected at the level of this analysis. It will be recalled that Blackburn (1998) was able to associate levels of criminality and interpersonal style in groups of forensic patients. Offenders with higher levels of criminal convictions were more dominant than those with the lowest convictions. Blackburn concluded that higher rates of offending are associated with a more dominant and hostile interpersonal style. Blackburn found however that the association is more consistent for general criminality than for specific types of offences.

Blackburn (1995) was able to demonstrate measurable associations between MCMI scale scores and coded observations of interpersonal behaviour in a particular context (a psychiatric ward). This suggests that it should be possible to discern differences in offending behaviour (another

particular context) amongst offenders with significantly different MCMI profiles. Sexual offending against children is, after all, an intensely interpersonal act.

There are a number of possible reasons why differences between the clusters did not emerge as expected in terms of offending behaviour so before concluding that the clusters are indistinguishable in terms of their previous and current offending, their risk of future offending, and the extent to which they go on to re-offend some limitations of the present study need to be considered.

First, the cluster sizes in the present study are relatively small requiring substantial differences in any aspect for that difference to achieve statistical significance. Secondly, many of the measures used are fairly gross, giving only the broadest sense of offending. Arguably, the most reliable measures were those that clinicians at Kia Marama modified on the basis of their extensive assessments of the offenders, variables such as the gender and age preference, the estimated number of previous victims, and the role of violence in the offending. Even these measures are however subject to error on the part of the clinician making the rating and may not be a true reflection of the offenders' pattern of offending. Convictions do not necessarily tell the whole story either and the distinction employed in this study between intrusive and non-intrusive offending is very limited. It is possible for one act of indecent assault to contain far more aspects of violence, for instance, than one instance of sexual violation. In addition when one considers the convoluted process required to gain a conviction, the incidence of plea bargaining, and the use of specimen charges, it is quite possible that formal records of offending do not provide the details necessary to discern interpersonal differences between offenders' modus operandi. In short conviction does not capture the *way* the offenders conducted their offending. The implications of this for studying sex offenders is that the calibrations required to discern differences between child molesters may be greater than for a general offender population.

Thirdly it may be that the cluster process itself limits the level of analysis that can be carried out. If, for instance, one-point codes were used to assign the 110 subjects to 11 groups based on their highest MCMI scale score clearer differences may have emerged. This option was not taken because of the limitations of relying on the score of one scale however it is acknowledged that using more sophisticated means of classifying subjects on the basis of their personality scores introduces additional complexities into the analysis. To quickly test this hypothesis subjects were

divided into those who had a BR score greater than 75 on the Antisocial scale from those who did not. These two groups were compared on all the offence related variables reported on above. They did not differ significantly on any of the measures. Further analysis with other scales was not carried out in light of this result. It remains possible however that the clustering process blurred distinctions that may have been evident if other procedures had been used.

So on the face of the results so far the four clusters, found in Study 1 to resemble groups previously identified in offender studies, and found to vary significantly on a range of measures in ways consistent with earlier findings, do *not* vary in the way they go about their sexual offending. Before resorting to this conclusion a further and final study was carried out in an attempt to go beyond the picture of offending that this study was reliant on; a picture limited by its reliance on official documents and offenders' self disclosure. Because of the size of the next step in this exploratory process it is presented as the separate study that now follows.

2.5: Study 4, Comparison of the Clusters on Details of Offending Behaviour

2.5.1 Introduction to Study 4

Study 1 identified four clusters within a sample of child molesters based on their responses to personality scale items of the MCMI. The clusters resembled clusters found in other offender populations. Study 2 showed that while the four clusters were very similar on a range of demographic and background factors they differed significantly and meaningfully on a range of psychometric tests commonly used to assess the treatment needs of child molesters. They were also found to respond differently to treatment as evidenced by the changes in their scores on the psychometric tests following treatment. Study 3 investigated the possibility that the four clusters would differ on factors more directly related to their offending. The clusters however were found not to differ in terms of their selection of victims, their relationship to victims, the extent and duration of their offending history, their convictions for sexual and other offences, their risk for future offending, or their actual re-offending rates following release after treatment.

Before concluding that the four clusters do not vary in terms of their offending behaviour Study 3 raised some limitations about the detail of information available to compare the offenders on in terms of their offending behaviour, and raised the possibility that the information might not be detailed enough to observe differences in the interpersonal style that offenders employ while offending. Study 2 recommended that it would be worthwhile to examine the offending behaviour in more detail, and from sources other than conviction data and the offenders' own self reports.

In order to study the actual offending behaviour of the offenders in the sample, permission to analyse their police files was obtained. This source of information was selected in the anticipation that it would provide an independent account of the offenders' behaviour, and be sufficiently detailed to code aspects of behaviour that convictions may have disguised.

Previously child molesters' behaviour leading up and during the commission of an offence have been coded in detail with devices such as Kaufman's *Modus Operandi P Questionnaire* (Kaufman, 1994; Kaufman, Hilliker, Lathrop, Daleiden, & Rudy, 1996). This self report questionnaire requires offenders to respond on a six point scale (0=never to 6 = always) to 365 questions regarding demographic information about themselves and their background, their victims, the strategies they used to overcome the protection offered to victims by their parent(s), the offending behaviour they engaged in with their victims, how they found and had time alone with victims, how they gained the trust of their victims, how they considered their relationship with their

victims, how they got their victims involved in sexual activity, and how they kept their victims quiet about the sexual activity. This present study used the extensive coverage of the Modus Operandi Questionnaire as the basis for developing a checklist from which to compare the information held in police files on the subjects in the current study.

Permission was sought from the New Zealand Police to gain access to the files of each member of the sample in a letter written to the Police's Coordinator of Psychological Services. A brief account of the research was provided together with conference presentations outlining provisional results. Initially permission was sought to view the files of two offenders. The aim of this was to ascertain the quality and detail of information held on the files. After viewing two files it was considered that they contained sufficient information of sufficient quality to warrant detailed coding of the contents. Permission to access further files was granted to the researcher by the Assistant Commissioner of Police.

2.5.2 Method

A checklist of offence related details was developed based on Kaufman's *Modus Operandi Perpetrator Questionnaire*. Items from the questionnaire formed the pool from which items were selected to include in the checklist used in this study. Items pertaining to demographic information were omitted because they had already been obtained and verified from official sources. Other items, which required the offender to interpret or comment on their own behaviour (e.g. item 139 "How did you decide it was safe to begin sexual contact with a particular child?"), were also omitted because it was considered unlikely that this information would be readily found on their police file.

A pool of 115 items forming the initial checklist was ordered under the general headings used by Kaufman. The items consisted variously of events, locations, situations, and behaviours that could be coded as present for a particular offender based on information contained in the police files. Eight headings were used to organise the items, and these heading were ordered in the likely ordering of events leading to the offence. The eight headings are:

- 1) Strategies with victim's parents and/or caregivers. The initial list included four items such as befriending the parents, babysitting or minding the victim.

- 2) Gaining trust of the victim(s). The initial list included 15 items such as touching the victim non-sexually, treating them like an adult, telling them how special they are.
- 3) Situations enabling time alone with the victim(s). The initial list included 19 items such as having the victim sleep in the offenders bed, taking the victim swimming, staying up after the victim(s) parents had gone to bed.
- 4) Locations and situations which the perpetrator isolated or removed the victim(s) to. The initial list consisted of seven locations such as the perpetrator's home, a playground or park, an organised activity (sports, clubs etc).
- 5) Enticements, means of exacting victim compliance. The initial list consisted of 14 items such as promising the victim rewards, using force or constraint, letting the victim see the perpetrator with other children.
- 6) Means of involving victim(s) in sexual activity. The initial list included 27 items such as talking about sex, wearing less clothing, threatened the victim.
- 7) Offence behaviour. The initial list included 21 items describing offence behaviour such as touching the victim's genitals, attempting to put his penis in the victim's vagina, cutting/ burning / beating or hurting the victim.
- 8) Means used to keep victim(s) quiet. The initial list included eight items such as giving the victim special privileges and or rewards, hurting the victim as a warning for telling, telling the victim their parents will not love them if they find out.

A complete list of the final checklist used to code offenders' behaviour can be found in Appendix 2

Police files on the offenders were requested in batches and made available for review by the researcher at the Christchurch Central Police Station, and the Auckland Central Police Station. The files consisted of a wide range of documents but typically included the following:

- File cover briefly listing the victim(s), the alleged offender, witnesses, and a summary of the alleged offence (what, where, when),
- Modus operandi form describing previous offences,

- Property record sheet (containing details of property seized or surrendered at arrest),
- Job sheets outlining details of each step of the inquiry in a chronological format,
- Applications for search warrants,
- Transcripts of evidential interviews with victims and other witnesses,
- Victim statements (describing the victim(s)' accounts of what occurred),
- Witness statements (describing other witnesses' accounts of what occurred),
- Victim impact reports from professionals who have examined the victim(s),
- Reports on medical examinations of victims and the alleged offender if these occurred,
- Transcripts of interviews with the alleged offender,
- Statements made by the alleged offender,
- Criminal record of the alleged offender,
- Detailed versions of Summary of Facts prepared for trial,
- Letters from the Crown Solicitor outlining requirements for trial and the outcome of the trial,
- Documents outlining grounds for opposing bail.

There was often duplication of information throughout the file as the investigation progressed and information was received and processed into documents for various purposes. This however provided a means of internally verifying information on the file.

Using the initial checklist drawn from Kaufman's items, the researcher and a senior colleague (Dr Steve Hudson) reviewed the first eight files available together. Initially each item was coded on a four point scale (1 = clear evidence present on the file for the occurrence of the behaviour, event, situation or location; 2 = evidence for the item not clear but suggestive from file information; 3 = the occurrence of the item could be speculated on the basis of other information on file; 4 = no evidence for the item on file). The two raters had considerable difficulty reaching reliable agreement about the middle two ratings (2 & 3), and these were dropped from the analysis. Thus each item was rated as either present or absent on the basis of file information.

The researcher and senior colleague developed a series of conventions regarding the ratings including the following:

- Ratings would be made on all information available on file, and not simply restricted to the details of the current offence (for instance if there was evidence that the offender had used threats during a previous offence the relevant items were checked).
- Multiple items relating to the same behaviour would be checked across the sections of the checklist (for instance if threats were used to exact compliance from the victim prior to engaging in sexual activity, then the relevant threat items were also coded in the section on keeping the victim quiet). In this regard police investigations naturally did not make the same distinction between these events as the Kaufman questionnaire does and, reasonably, assumed that threats made at any stage of the offence process could have enduring effects. This was considered to be the case for a number of other activities.
- When a behaviour, event or situation was clearly evidenced in the police file and could not be accurately coded on the checklist, an additional item was created to capture it. The aim of the exercise was to, initially at least, establish as rich a description of the offender's behaviour and offending circumstances as possible. As a result of this the final list in Appendix 2 has 230 items.
- All items relevant to describing the offending were coded, thus it was possible for an offender to befriend the victim's parents but also be coded as a neighbour to the victim's family (one of the additional items added) depending on the information available on the file.

Every effort was made to locate the relevant files of all the offenders in the sample. Sometimes this required multiple requests and searching for the file at alternative locations. Attempts to locate files continued until all reasonable avenues had been exhausted.

2.5.3 Results

Police files were available for a total 86 of the 110 subjects in the sample described in Study 1. Files on the remaining 24 offenders could either not be located, or when located were related to offending other than sexual offending against children and hence could not be analysed.

Appendix 2 shows the frequency with which each of the items was coded as present for each of the clusters. The items are sorted on the basis of overall likelihood of occurrence within each of the heading areas. The clusters derived from the four-cluster solution in Study 1 were compared.

Cluster tallies for each item were compared using a Chi² test and the results of these are also recorded in Appendix 2. It can be seen that the four clusters only differ significantly on five of the 230 items on which then were compared. The items are as follows:

- Item 1.6: The perpetrator established access to the victim without their parents knowing
- Item 3.3 The perpetrator had the victim sleep in his bed to enable time alone with them
- Item 4.7 The perpetrator isolated or removed the victim to a friend's or other family member's home
- Item 6.17 The perpetrator threatened to hit the victim to involve them in sexual activity
- Item 7.36 The perpetrator held hand over the victim's mouth during the offending

Regarding Item 1.6 (established access to the victim without their parents knowing) this activity was limited to members of Clusters 2 and 3. Clusters 1 and 3 were more likely to have the victim sleep in their bed to enable time alone with them (Item 3.3). Cluster 1 was significantly more likely than the other clusters to isolate or remove the victim to a friend's home or the home of another family member (Item 4.7). Cluster 1 was also the only group to threaten to hit the victim to involve them in sexual activity (Item 6.17). Cluster 2 was more likely to hold a hand over the victim's mouth during the offending (7.36). One further item approached significance (Item 3.4) with Clusters 1 and 4 being more likely than the other clusters to take the victim somewhere during the day with consent of their parents to enable time alone with them

2.5.4 Further analysis

The number of offence-related items on which the four clusters differed significantly was considerably lower than expected given the differences found on psychometric tests reported in Study 2. It is however consistent with the findings of Study 3 which did not find differences in high-level offence-related variables. In order to exhaust the possibility that the sheer number of items on which the offenders were being compared was masking differences between the clusters the data reported in Appendix 2 were subjected to an extensive range of further analyses including the following:

Factor analysis of variables

This was undertaken to reduce the number of variables involved and produce scores on a smaller number of factors that could then be compared across the four clusters. Statistically meaningful factors were derived but the items contributing to each factor lacked coherent clinical themes to

the extent that they could be used for comparisons across the clusters. They have not been reported here because they do not add clarity to the analysis.

Next, the item pool was reduced by removing those items that had little or nothing to do with interpersonal behaviour (e.g. items relating to location of behaviour). The remaining items were factor analysed and whilst factors were obtained again these failed to display clinical meaningfulness. Again they have not been reported here because they do not add clarity to the problem.

In a third attempt to locate meaningful subgroups of items, themes within the items were identified. Three themes were evident:

- 1) items containing sexual content or reflecting sexual activity,
- 2) items containing emotional content or reflecting emotive activity,
- 3) items containing hostile or deceitful content or reflecting such behaviour.

Items were sorted into sets reflecting one of these themes or, as a fourth option containing none of these three key themes. Confirmation of the coding was obtained from a third party. Items were subjected to further factor analysis to determine if the groupings on the basis of these themes would emerge as factors. They did not. Factors contained items from each of the four categories and again no meaningful organization of the data emerged.

Cluster analysis of variables

Similar processes to those described with factor analysis were carried out using cluster analysis of the variables. Cluster analysis is often used in such an exploratory way to discover grouping of variables based on their similarity. Cluster analysis was first applied to the items in each of the subsections and then to the entire pool of items. Results indicated that while it was possible to generate clusters these did not reflect meaningful collections of items that could be used to compare the subject-based clusters on.

Finally the factors and clusters obtained were considered directly in terms of their relationship with scale scores on the MCMI, rather than the average scores of the clusters. It was thought that the process used to cluster subjects in Study 1 might have masked some more basic relationship between personality scores and offending behaviour. None of the correlations tested were significant.

2.5.5 Discussion

The four clusters identified in Study 1 were compared on 230 items coded from police files related to their sexual offending against children. The clusters only varied significantly on five of the items. Efforts to reduce the number of items did not improve the chances of finding differences between the clusters. On the face of it, it could be concluded that the four clusters which vary in terms of their personality and in terms of psychometric measures related to offending do not in fact vary in terms of their offending behaviour.

A number of limitations are evident in this study that might have influenced the findings. First as a source of information the police files varied greatly in terms of their richness. The size of the files and level of information provided varied and was not necessarily related to the complexity or extent of offending. Sensibly, the police persevered with their investigation until it was considered they had sufficient information to successfully prosecute the offender. So some comparatively minor offending was thoroughly investigated and documented giving rise to the opportunity for a great deal of coding. On the other hand the investigation into a very serious offence might be completed very briefly with the offender confessing to the crime. Thus the *amount* of information that was available to be coded varied greatly and may have influenced the comparisons.

Secondly the coding was heavily dependent on the quality of the documentation and this too varied widely. In order to preserve the independent nature of the data being gathered the researcher avoided interpretation of the information being coded. Rather, coding was dependent on the language used in the police documentation and it was apparent that similar phrases were used to describe what appeared to be widely varying activity on behalf of the offenders. Coding was completed to quantitatively represent what was recorded on the file.

Thirdly the large number of items being coded often resulted in very small numbers in cells being compared. Attempts to address this by collapsing the data were not successful however.

Fourthly, items in the checklist were not informed by the theoretical differences between the four clusters being tested (i.e. they were not selected for their representation of the two orthogonal axes of the interpersonal space used to account for the differences in the clusters in general terms). Rather they were selected as offering the greatest opportunity to code the details of all aspects of the subject's offending behaviour and its precursors. This reflects the exploratory nature of this study. As discussed above many of the items are in no way linked to interpersonal

behaviour and it would have been very surprising to have found consistent differences between the clusters on these items.

Given this last point what was surprising was the finding that the clusters did not vary on items that could be said to be interpersonal, and moreover should be related, at least, to the hostility axis of the interpersonal space. Recall that Cluster 1 (akin to Blackburn's Secondary Psychopaths) and Cluster 2 (akin to Blackburn's Primary Psychopath) are distinguished from the other two clusters by their high level of hostility. A number of the items in Appendix 2 are related to hostility⁹ and yet members of Clusters 1 & 2 were no more likely to show evidence of behaving in these ways than were members of Clusters 3 & 4.

This leads to a number of possible explanations, the limitations of the data noted above notwithstanding. First it is possible that behaviour related to sexual offending against children does not conform to the usual patterns of interpersonal behaviour. It could be argued for instance that such behaviour, being so far outside of the norms of expected interpersonal behaviours in and of itself, does not conform to expected patterns. It could further be that behaviour exhibited by some offenders towards their victims is so far outside their usual realm of behaviour as to become paradoxical, that is, those that typically behave in non-hostile ways, once they have breached the taboo of sexual contact with a child, or at least have embarked on a pathway towards such contact, abandon the usual self imposed constraints on their behaviour and behave in ways quite uncharacteristic.

A more probable explanation for the indistinguishable means by which the clusters undertake there is offending is perhaps offered by browsing the list of activities commonly engaged in to carry out such offending. The striking feature of the list is not the extra-ordinary lengths that offenders have to go to in order to commit their crimes, or the demanding level of interpersonal skills required. What is obvious instead is just how easy it is to commit a sexual offence against a child, how interpersonally undemanding the behaviour is, how unnecessary it is to show one's true personality colours when the individual being interacted with is young, vulnerable, needy and naïve. Those accustomed to resorting to hostility to ensure their needs are met may have found they did not need to in order to overcome the limited amount of resistance a child is likely to offer their advances. Many of the offenders were in a position of trust with their victim. It is striking how far this alone accounted for how it was that they were able to exact their abuse against children.

⁹ E.g. 5.2 – 5.5; 5.7, 5.10, 5.14, 5.16, 5.18, 5.19, 5.23, 6.1, 6.13, 6.14, 6.17, 6.20, 6.21, 6.35 - 6.37, 8.6, 8.8, 8.20

A final obvious interpretation is that personality, as a construct, does not adequately predict the specific offending behaviour of individuals who engage in sexual contact with children. This study has not been able to establish a link between measures of personality and the offending behaviour of child molesters. This finding suggests that while personality as a construct may be useful as an organizing heuristic for many of the factors considered, clinically, as important to address in the treatment of sex offenders it currently has limited utility in as a taxon for sexual offending behaviour against children. That is, while it may assist to understand some of the needs that offenders seek to meet in their offending it does not appear to predict *how* they go about having these needs met. These issues will be explored more comprehensively in the general discussion that follows.

Part 3 General Discussion

3.1 Introduction

The four studies reported above together represent a sequential exploration of the role of personality in understanding offending in a child molester sample. A particular focus was the extent to which the construct of personality could be used to reduce or account for some of the heterogeneity reported in this population. The approach taken was first to examine the structure of the sample in terms of personality dimensions, using cluster analysis, and then consider the extent to which the resulting personality typology was related to other aspects of offender functioning, including their offending behaviour.

3.2 Summary of Results

In combination the four studies undertaken here explored the role of personality in understanding sexual offending against children. Study 1 identified four clusters within a sample of child molesters, based on their personality styles. The clusters resembled clusters found in other offender populations. These have not been found in non-offender populations. Thus, added to the heterogeneity of this group of offenders discussed in the Introduction is considerable heterogeneity in terms of personality. There is no single personality profile that characterises child molesters. At the same time, personality heterogeneity can be accounted for in large part by the four-way typology that emerged from the cluster analysis. Furthermore, each of the four clusters was reasonably strongly represented within the present sample. In terms of differences between child molesters and the general population, it is argued here that differences are in terms of *location* within the interpersonal space (i.e. a particular personality type) but of the *extremity* of personality characteristics.

Study 2 provided a further test of the utility of using personality to sub-divide the population. It showed that while the four clusters were very similar on a range of demographic and background factors they differed significantly and meaningfully on a range of psychometric tests commonly used to assess child molesters. They were also found to respond differently to treatment as evidenced by the changes in their scores on the psychometric tests between pre- and post-treatment assessments. The clusters were much more likely to vary on dynamic factors, particularly those that reflect their functioning as adults, at the time the assessments were undertaken. The clusters were more likely to vary on intra-personal or inter-personal factors rather than those that could be considered more impersonal. They did not differ significantly in terms of major life experiences.

Study 3 investigated the possibility that the four clusters would differ on factors that were directly related to their offending. However, the clusters were found not to differ in terms of their victims, their offending history, their risk for future offending, or their actual re-offending rates following release after treatment. Overall, the differences that were found between the personality-based clusters on dynamic factors considered to be associated with offending were not sustained when the clusters were compared on data more closely related to offending behaviour. The current studies did not offer support for a hypothesis that offenders of different personalities offend in different ways, consistent with their personality. While the clusters derived in Study 1 were not found to differ in terms of risk of re-offending when the personality scores of offenders who went on to re-offend were compared to those who did not differences did emerge. The Antisocial, Passive-aggressive, and, to a lesser extent, the Histrionic scale, of the MCMI were positively associated with risk. The Dependent and Compulsive scales were negatively associated with risk. In terms of the interpersonal space it was the hostility axis (on which Clusters 1 and 2 are located at the high end) that appeared to account best for risk of re-offending. Overall Study 3 indicated that hostility, reflected in the Antisocial and Passive-Aggressive scales, was the strongest predictor of re-offending amongst the personality attributes measured by the MCMI.

Study 4 further investigated the differences among the clusters regarding offending by analysing accounts of sexual offending behaviour against children held on police files. It was this limitation, and the failure to find significant differences in available measures of offending behaviour, that led the researcher to undertake Study 4, a detailed coding and analysis of offence-related information taken from an independent source – police files. In Study 4 however there were again few discernable differences between the clusters, and by all accounts they used comparable means of undertaking their offences. The clusters were not found to vary on offending details coded from police files.

These results have both clinical and theoretical implications for an understanding of sexual offences against children. The key findings of each of the studies will now be discussed. This will be followed by a discussion of the major clinical and theoretical implications.

3.1.3 Four basic personality styles

Study 1 used cluster analysis to divide the sample of child molesters into subgroups based on their scores on the eleven personality scales of the MCMI. Four clusters were derived. A number of solutions were technically possible using cluster analysis but several steps were used to ensure the most robust clusters were derived. First, the optimal number of clusters for the sample was determined. The solution that divided the sample into four subgroups had the greatest statistical support, and precedents for this solution were present in the literature for other offender groups. Once the optimal number of clusters was set at four a further clustering technique, k-means, was used to assign subjects to one of four clusters with the greatest within-group similarities (closeness) and the greatest between-group differences (distance). All the subjects were reassigned to one of four clusters using a k-means clustering procedure. These closely resembled the four clusters obtained from the hierarchical process. Distinguishable clinical profiles were evident for the four clusters derived from this hierarchical cluster analysis. These could be described using the three-point codes (i.e. the three highest scoring scales) for each of the groups.

Concurrent validation of the personality test profiles of the four clusters was sought by comparing the subject's MCMI profiles to their profiles on another personality test, Cloninger's TPQ, administered to some of the sample at the same time that they completed the MCMI. These subgroups were found to differ significantly in terms of two of Cloninger's factors, harm avoidance and reward dependence, but not on the third, novelty seeking. Clusters 1 and 4, with high scores on the Schizoid and Avoidant scales of the MCMI reflecting, in part, harm avoidance. Their significantly higher harm avoidance scores on the TPQ supported this (see Table 2.17). Cluster 3, which was characterised predominantly by a high score on the Dependent scale of the MCMI, had a significantly higher reward dependence score on the TPQ. Cluster 2 had high scores on the Histrionic scale of the MCMI, partially reflecting sensation seeking. Given this they could have been expected to score higher on the Novelty Seeking scale of the TPQ but this was not the case. The clusters in fact all scored rather similarly on this scale. So, at least with regard to harm avoidance and reward dependence, there is evidence that the differences found between the clusters were not the result of features unique to the MCMI. This offers some evidence of concurrent validity for the typology.

There is support for the four-cluster solution from other studies with sex offender populations. The studies listed in Table 2.12 indicated that the typology is not limited to child molesters but has been found in mixed groups of offenders that include rapists and miscellaneous sex offenders

(Bard & Knight, 1987) and adolescent sex offenders not otherwise specified (Smith, Monasterky, & Deisher, 1987). As discussed in the Introduction the number of clusters elicited from a population depends on a range of factors. Given the hierarchical nature of the cluster analysis processes used, four clusters could be collapsed into three or two, or divided further into five, six or more. The determination of four clusters in the present study was less important *per se* than the fact that the clusters derived were similar to clusters derived from earlier studies on other offender types, which in turn had linked their findings back to the tenets of interpersonal theory.

Further support for a four-cluster solution has been found in a variety of samples of offenders, not only sexual offenders. They have been found in violent offenders (male prisoners convicted of homicide, McGurk, 1978; prisoners incarcerated for violent offences, Henderson, 1982, 1984; and spouse batterers, Greene, Coles, & Johnson, 1994). They have also been found in less specific offender populations (incarcerated offenders, Blackburn, 1986; Holland and Holt, 1975; McGurk & McGurk, 1979; Weekes & Morison, 1993; Widom, 1977, and an outpatient offender population, Wales, 1995). Comparing the four clusters with those reported by Blackburn revealed a strong similarity. Using this similarity it was suggested that the four clusters might reside in a two-dimensional interpersonal space defined by hostility and sociability in the same quadrants as their Blackburn counterparts.

It is notable that one available study suggests that the typology may be distinctive to offender populations in that McGurk & McGurk (1979) failed to reproduce the four-fold typology in non-offender subjects. So, on the basis of current evidence it would seem the typology is characteristic of offender populations but not others. There are a number of reasons why this may not be so however. First, evidence limiting the typology to offenders is based on a single study. Second, given the generality of the interpersonal model, and the evidence reported in the Introduction regarding the association between the four types of offenders that Blackburn identified and their locations within the interpersonal circle, one could reasonably expect to find similar types emerge from non-offender populations, and for these to be spread similarly around the interpersonal circle. This would also be consistent with the general theme of the Introduction that child molesters have more in common with non-offenders than they have differences. Further, as mentioned above the clusters are spread around the interpersonal space reasonably evenly. The general population would also be expected to have this spread. Recall from Chapter 3 that the interpersonal domain was found to have the required qualities of a circumplex. One of these qualities was an even spread of variables around the centre (Acton & Revelle, 1995; 2002).

These reservations aside, evidence for the typology exists within offender populations. The key implication of this for child molesters is that they are not confined to a particular personality type or, put another way, there are no personality types that are immune to engaging in sexual offending against children.

So, if child molesters cannot be distinguished on the basis of a particular personality type, what are the differences between them and the general population? It is argued here that the difference is not one of *location* within the interpersonal space but of the *extremity* of personality characteristics. This has been referred to as *vector length* in terms of the interpersonal space. Each of the four clusters from the present studies can be well described in terms of their high points above a BR of 75 on the MCMI scales. As mentioned above, such scores reflect the *clinically significant presence* of the trait being measured. So, while child molesters may not differ from the general population in terms of their location in or spread around the interpersonal space they do appear to differ in terms of their distance from the centre of the space, i.e. the extremes of their personality characteristics. In these terms Study 1 identified four clusters distinguishable from each other on the basis of the personality profile and with these distinctions most evident in the scales on which they scored most highly. Their high scores on these scales in turn are the features that are most likely to set them apart, in terms of personality, from members of the general population. Having identified these groups the remaining three studies considered other ways in which the four clusters might differ. These are discussed in the next section.

Before moving to discuss the results of Study 2 mention is required of the personality test used to determine the subgroups in Study 1. The MCMI was used because of a significant literature reporting on its use with offender populations and in particular its use in the research that had prompted the current set of studies to be undertaken. The first version of this test was used because at the time data were being gathered the second edition was relatively new and publications regarding the strength of its psychometric properties were limited.

Throughout the studies the clusters have been described in terms of their high points on MCMI scales. This follows the conventions advised in the MCMI manual (Millon, 1983) and various interpretative guides (Choca, Shanley, & Van Denergh, 1992). A base rate (BR) score of 35 on the MCMI has been established as the median score for non-psychiatric populations and a BR of 60 was established as the median score for psychiatric populations. In the present studies the scales on which clusters achieve a mean BR score greater than 75 are considered to be of particular interest. Such scores are considered by Millon (1983) to reflect the clinically

significant presence of the trait being measured. So, the results obtained, and the differences discussed, reflect clinically significant elevations of these scales.

Low scores are important to understanding an overall MCMI profile too, but Millon (1983) and others (Choca, Shanley, & Van Denergh, 1992) advocate a careful analysis and interpretation of the profile defined by the high scoring scales. A general rule of thumb with the MCMI is that low scores do not necessarily mean the absence of the trait being measured or the presence of an opposite trait. A low score on one scale may co-occur with a high score on another scale but this is not to say that MCMI scales are deliberately paired or connected “hydraulically” (i.e. when one goes down another goes up in compensation). Rather, by seeking to cover a range of human functioning, the scales, to a certain extent, reflect opposites in functioning, and as such will vary in opposing directions. So on this basis, for instance, Cluster 4 has high scores on the Schizoid and Avoidant scales and a low score on the Histrionic scale. Similarly Cluster 2, which has a high score on the Histrionic scale, has low scores on the Schizoid and Avoidant scales.

3.4 Personality typology and factors associated with offending

Study 1 derived four clusters that were subsequently shown to resemble strongly groups reported and described elsewhere in the literature. Having established these clusters the next question to consider was whether they varied in terms of factors other than their basic personality styles. In particular Study 2 considered whether the clusters varied in terms of basic demographic details and in terms of other aspects of their functioning possibly related to their offending. What was found was that there were strong relationships between personality profiles and other aspects of offender functioning, including their responsiveness to treatment.

Study 2 compared the four clusters on a range of information available on the sample, including demographic information, psychometric measures of emotional functioning, interpersonal skills, self-perception, sexual attitudes, beliefs and fantasies, and the response of the offenders to the treatment programme. The first part of the study found that the four clusters were, unsurprisingly, virtually indistinguishable in terms of basic demographic information, but differed in meaningful ways when they were compared on a large battery of psychometric tests. The features measured by the psychometric tests considered more specific details of functioning than a personality test yet consistent and meaningful findings were obtained. This enabled an expanded picture to be formed of each cluster.

It requires mention at this stage that the tests that formed the psychometric battery administered to the subjects were all developed overseas and little was available in terms of New Zealand norms let alone norms that could be confidently applied to an offender population in New Zealand. The fact that 23% of the sample were Maori added to the need to apply a cautious and conservative approach to interpretations to each of the psychometric tests used. One possible effect of this conservative approach was a “flattening” of individual offender’s psychometric profiles, reducing the probability that they would differ from others’. Given the differences that did emerge this simply means that they may have been even greater had a less conservative approach been taken.

The demographic measures used in Study 2 were mainly static (i.e. features of the offenders’ background that are by definition unchangeable). The psychometric measures, on the other hand, all measured dynamic aspects of the offenders’ functioning. These were measured in order to determine their possible contribution to an individual’s offending, and, if this proved to be the case, as guidance in identifying targets for change in therapy. The clusters tended not to differ on factors that are unchangeable. For instance no differences were found between the clusters regarding the following:

- | | |
|--------------------------------|--|
| • Country of birth | • IQ |
| • Father’s occupation | • Number of marriage-like relationships |
| • Birth order | • Satisfaction in previous relationships |
| • Educational attainment | • Marital status at arrest |
| • Source of income at arrest | • Number of children at arrest |
| • Occupational level at arrest | • Sexual orientation |
| • Income bracket at arrest | |

Nor were differences found on some fifteen other such historical measures gathered on the sample. This is not surprising given that none of these variables have known associations to personality. The clusters did however vary significantly on a few static factors including ethnicity, incidence of childhood illness, and incidence of childhood emotional abuse.

The clusters were much more likely to vary on dynamic factors, particularly those that reflect their functioning as adults, at the time the assessments were undertaken. For instance the clusters significantly differed in terms of:

- Incidence of literacy problems
- Incidence of adult alcohol problems
- Incidence of depression
- Incidence of state and trait anxiety (although long term trait anxiety is still arguably a dynamic factor)
- Trait anger and other aspects of anger expression (including the tendencies to express, suppress or control anger)
- Social self-esteem
- Assertion (both discomfort and response probability)
- Fear of intimacy
- Loneliness
- Social avoidance and distress
- Perceived loci of control
- Social desirability
- Endorsement of cognitive distortions related to sexual contact with children
- Reported hostility towards women
- Reported use of sexual fantasies (exploratory, intimate, and sadomasochistic)

They did not differ on some dynamic measures including incidence of adult drug problems, adult psychiatric illness, physical disability (although this may arguably be a static factor depending on the disability), pornography use, paraphilias and sexual dysfunctions, and reported use of impersonal sexual fantasies.

So, the clusters were more likely to vary on intra-personal or inter-personal factors rather than those that could be considered more impersonal. They did not differ significantly in terms of major life experiences. This result extends earlier research into a new domain.

The second part of Study 2 compared the performance of each of the clusters in treatment. The clusters were found to vary in terms of the extent to which they reported changes on these measures following treatment. This constitutes a further extension of the literature.

A clinical profile was offered for each of the clusters in Study 2. It was argued that the profile for each cluster was consistent with its location in one of the four quadrants of the two-dimensional space discussed above. This was based on the similarities between the four clusters and clusters derived from Special Hospitals Assessment of Personality and Socialization (SHAPS) scores in Blackburn's (1995a) study. Blackburn had located his four clusters in the quadrants of the interpersonal space. Given that the present clusters were derived directly from MCMI scores,

and that it was theoretically possible for any number of clusters to be derived, it was by no means a certainty from the outset that a four-cluster solution would be the best, or that the four clusters derived would match Blackburn's as well as they did.

At this point a more integrated profile of each of the clusters is offered and the profiles will be related to progress in treatment. Added to each of these profiles are some results of additional analysis undertaken (but not reported in the earlier studies) on changes evident in MCMI scores following treatment. These data were available for a large proportion of the sample. Changes in MCMI profiles give an indication give an overall indication of how the offenders' views of themselves, others and the world had changed following their experience in the programme.

Cluster 1

Cluster 1 resembled Secondary Psychopaths identified previously in the literature. They had high scores (>75 on average) on Schizoid, Avoidant, Antisocial, and Passive-Aggressive MCMI scales so members had introverted and avoidant elements to their personality as well as negativistic (Choca, Shanley, & Van Denergh, 1992). Individuals with this profile are inclined to have little interest in interpersonal matters and are seen as emotionally insensitive, distant or apathetic. They tend to lack energy and enthusiasm and display vague or impoverished thinking processes. They may experience conflicts in social situations where they feel inadequate and seek nurturance, shelter and guidance. Fear of rejection however may leave them nervous, moody, and resentful. Anger and dissatisfaction tend to colour their relationships.

On other tests, administered prior to treatment, Cluster 1 stood out for its level of pathology. Members were more likely to report experiences of major childhood illnesses, childhood emotional abuse, adult alcohol problems, and reading problems. The cluster had clinically significant elevations on 21 of the 28 scales used. They showed the greatest level of deviancy on all the scales used to measure sexual attitudes, beliefs, and behaviours. The cluster was characterised by high levels of depression, anxiety and anger. The depression and anxiety were consistent with the schizoid and avoidant aspects of their personality and the high level of anger is consistent with the negativistic element. From their personality description however it would seem that they tend not to overtly display this anger via obvious acts of aggression. They revealed a complex profile with tendencies to both express and suppress anger reflected in elevated scores on the both Passive-Aggressive and Antisocial MCMI scales. They reported the poorest ability to control angry feelings of all the clusters, a low level of social self-esteem, discomfort at the prospect of behaving

assertively and a concomitant low probability of acting assertively. They experienced loneliness, and social avoidance and distress, and tended to believe that external factors control events.

Overall this description supports the location of Cluster 1 on Figure 2.12 (high on hostility, low on sociability). The profile of Cluster 1 was generally consistent with the picture that emerged from similar groups in the literature reviewed in Chapter 2. Henderson's (1982, 1984) Disturbed/Hostile group (Secondary Psychopaths), for instance, showed generally poor social skills in a range of situations and was likely to be anxious, quiet and lacking confidence. Secondary psychopaths have been found to be the most deviant in terms of MMPI and Special Hospitals Assessment of Personality and Socialization (SHAPS; Blackburn, 1982; see Blackburn, 1993a, p34) profiles and in terms of EEG abnormalities, emotional imagery measurements, intensity of anger, and low IQ (Blackburn, 1993a).

It was interesting that this cluster, more than the other groups, made substantial improvements in their emotional functioning during treatment. This is encouraging given the prominence of difficulties in this area evident from their profile. Furthermore, examination of MCMI's completed post-treatment by members of Cluster 1 reveals lowered scores on the Schizoid, Avoidant, and Passive-aggressive scales that characterise the group. The mean Schizoid score post-treatment was 65 (compared to 83 pre-treatment). Similarly, Avoidant scores dropped from an average of 84 pre-treatment to 65 post-treatment. Passive-aggressive scale scores dropped from 79 to 62. Each of these shifts reflects a sufficient drop to take the feature below the cut-off of 75 used to indicate a clinically significant presence of the feature. An interesting trend was that scores on the Antisocial scale increased slightly from 77 pre-treatment to 80 afterwards. It is evident that at the end of treatment members of this cluster had made significant gains in lowering some severe aspects of their habitual interpersonal functioning. While the topography of the cluster remained comparable to that observed prior to treatment the extremities were moderated following treatment. The continued presence of antisocial features is a concern, however, particularly when taken with evidence for limited change on other psychometrics discussed next.

Cluster 1 made little gain in terms of key interpersonal skills deficits often associated with sexual offending against children (assertiveness, intimacy, social confidence). Neither did they make particularly strong gains in addressing attitudes, beliefs and fantasies that could support offending although they did drop in their reported acceptance of rape myths and use of impersonal fantasies. From this it could be said that members of this cluster ended up "feeling

better” about themselves at the end of treatment but evidence that this improvement transferred to improvement on cognitive and behavioural factors that are more directly related to offending was less forthcoming. It is possible that the intense and intimate nature of the group-based therapy programme, rather than its offending-based content, accounted for this change. The programme requires participants to continually engage in an open manner with each other, an experience that rather goes against the grain for those with schizoid and avoidant features to their personality.

The large number of clinically significant elevations on psychometric scales reported above and the fact that this group showed the greatest level of deviancy on scales that measure sexual attitudes, beliefs, and behaviours is a matter of some concern as these are areas where significant and sustained improvement would be sought to reduce the likelihood of further offending. Given that outcome studies support the effectiveness of the Kia Marama programme, and that members of this cluster continue to display features considered risk factors for re-offending but are no more or less likely to go on to re-offend than members of other clusters, a possible conclusion is that the treatment effect observed for this group is attributable to the personality-based changes described above.

Cluster 2

Cluster 2 strongly resembled Primary Psychopaths identified previously in the literature. With high scores above 75 on the Narcissistic and Antisocial scales, and approaching this level on the Histrionic scale (average BR 72), members are characterised as being confident, dramatic, and competitive (Choca, Shanley, & Van Denergh, 1992). They see themselves as special and superior to others, exaggerating achievements and attributes in an air of conviction and self-assurance. They may pay strict attention to their appearances but may experience a need for approval and a striving to be conspicuous, to evoke and attract attention from others. On first impressions they may stand out for their ability to articulate thoughts, their dramatic flair and their natural ability to draw attention. They may however be capricious and intolerant of frustration, experiencing short-lived emotions, boredom, and the constant shift from one enterprise to another. They are competitive and believe they have to be tough to fend for themselves. As a result they may be mistrustful and suspicious. They may view compassion and warmth as weak emotions that place them in inferior positions.

Cluster 2 was the most robust, socially confident, and able of the four clusters, bearing little resemblance to the “typical” child molester discussed in the Introduction. They reported no

difficulties with self-esteem, assertiveness, fear of intimacy, loneliness, or social avoidance and distress. They did not report problems with depression, trait or state anxiety and, like the other clusters, did not show elevated levels of *state* anger. The absence of state anger is curious given other aspects of their presentation and may be a reflection of the context in which the assessment was undertaken. They generally believed that internal factors control events, and show a mild tendency to respond in a socially desirable manner. So, broadly speaking, this group did not suffer the range of deficits evident in the other clusters. The factors that they did stand out on were those directly related to sexual attitudes, beliefs and behaviours. In this respect they were similar to Cluster 1. Further they displayed difficulties related to hostility, and in this they share Cluster 1's tendency to be *typically* angry and to both externalise and suppress anger. They were however distinguished from Cluster 1 by their high sociability. This profile was consistent with their position on Figure 2.12 reflecting high hostility, high sociability.

Again the findings are consistent with earlier results. Henderson's (1982, 1984) Extrovert/Hostile group (Primary Psychopaths) reported no general social difficulties but had problems with temper control. Primary Psychopaths have been found to have the highest levels of autonomic arousal and highest levels of sensation seeking (Blackburn, 1993a).

So given that the issues for this group centre on hostility and sexual attitudes, beliefs and behaviours, how well did they do in treatment on these matters? At the end of treatment this cluster showed a significant decline in the number of members who reported feeling typically angry to the extent that this placed them over the clinical threshold. Prior to treatment 68% reported feeling typically angry. At the end of treatment only 33% reported this. Regarding sexual attitudes and beliefs the number of members reporting hostility to women nearly halved from 63% to 33% although this was not statistically significant. The number of members reporting rape myth acceptance halved also from 47% to 22 % but this was not significant either. Far fewer cluster members were likely to report using exploratory or impersonal sexual fantasies at the end of treatment (63% to 19% and 68% to 25% respectively). The reported use of sado-masochistic fantasies dropped from 37% to 19% but this was not significant. The cluster retained a strong likelihood of reporting the use of appropriate intimate sexual fantasies (74% to 75%). This is encouraging given the treatment programme theme of encouraging this form of fantasy in favour of more impersonal ones.

An examination of the mean MCMI profile of cluster members following treatment revealed very little change. The defining features remained with BR scores greater than 65 on the

Histrionic, Narcissistic and Anti-social scales. A small elevation in the Compulsive scale (raised from 55 to 65, taking it to the entry point of the range indicating a clinically significant presence) was evident. This might reflect a greater preparedness on the part of cluster members to adopt a more conventional approach to life. In this respect they appeared to have become a little more like their Cluster 3 neighbours in the interpersonal space. This would be consistent with the changes observed above in their reported use of sexual fantasies. The extent to which this would mitigate against the continued strong presence of anti-social traits in this group is not known however.

Given the success of the Kia Marama programme at reducing re-offending, and the absence of differences between the clusters in their re-offending rates it is possible that treatment success for this group could be attributed to the specific changes they made regarding sexual attitudes and beliefs.

Cluster 3

Cluster 3 strongly resembled Controlled offenders previously identified in the literature. Members had a high score on the Dependent scale exceeding 75 and a score on the Compulsive scale approaching it (72). Choca, Shanley, & Van Denergh (1992) described this profile as characterised by low self-esteem and an orderly disciplined nature. They are humble, personable, and capable of forming strong interpersonal relationships in which they aim to be as congenial as possible to secure the support they need. So they may be compliant or submissive, avoiding competitive situations. Because of their own self-doubt they rely on guidance and protection from others and seek to avoid making mistakes in anticipation of a positive outcome. They try to be efficient, dependable, industrious and persistent. They may relate to others in an overly respectful and ingratiating way, and may be perfectionistic and demanding, but they struggle to make decisions on their own.

The word “conventional” has been used to describe Cluster 3 and this was borne out by the responses to pre-treatment psychometric tests. They were the least distorted of the clusters in terms of deviant cognitions and hostility towards women and showed a more conventional profile in terms of sexual fantasies. They revealed a very normal profile in terms of emotional functioning. Depression was on the cut-off for mild depression, and they had no problems with anxiety or anger. Their difficulties appeared to reside in the areas of social confidence and esteem. They were the most reward dependent of the clusters and the most likely to respond in a socially desirable way. This latter tendency may have contributed to their conventional appearance and

masked more significant problems on some of the other inventories. The profile as presented was consistent with their position on Figure 2.12: low on hostility, high on sociability. They shared a degree of sociability with Cluster 2, but where Cluster 2 members were outgoing and gregarious, this cluster was conforming and controlled so as not to appear unconventional.

Again these were consistent with earlier findings. Henderson's (1982, 1984) Controlled group showed few social skills difficulties of any sort. "Controlled" individuals have been shown to display denial of strong emotional reactions (Blackburn, 1993a).

Following treatment significantly fewer members of Cluster 3 were likely to endorse rape myths than had prior to treatment (44% to 15%). They also reported a significant drop in their likelihood of using impersonal sexual fantasies (56% to 27%). Further significant gains were made in the levels of state anxiety and social self esteem after treatment. The increased confidence evident in these changes flowed through to significant improvements in their likelihood of acting assertively. In terms of their personality profile this cluster retained its high level of conventionality post-treatment with only a slight drop in the mean Compulsive scale score (from 72 to 69). They did however display a substantial drop in their Dependent scale score (from 81 to 66). While this trait remains in the range of clinical significance, its strength is lower than it was prior to treatment.

The deficits in social confidence exhibited by Cluster 3 are ones commonly reported in the literature on child molesters, and because of this the deficits are well represented in the treatment programme content at Kia Marama. For this group then, treatment appears to have neatly targeted their deficits.

Cluster 4

Cluster 4 had high scores above 75 on Avoidant, Schizoid and Dependent MCMI scales. This profile is characterised by interpersonal apprehensiveness, feelings of inadequacy, and introversion (Choca, Shanley, & Van Denerg, 1992). They may lack interest in interpersonal communications and the personal feelings of others, and they may be unaware of their own emotions, remaining aloof and detached, appearing to others as complacent, and apathetic. They are private individuals, often loners, who may have acquaintances rather than intimate relationships. They are concerned with being liked and appreciated, but a fear of rejection by others keeps them from involvement with others. Because of this they avoid social interactions to remain comfortable and at ease but worry about lack of support. When they do form a

relationship their fear of rejection leaves them tense, nervous and uncomfortable, so they resort to cooperativeness to the point of submission.

Cluster 4 showed high levels of hostility towards women and an acceptance of rape myths. They were most like Cluster 1 in this respect. They were also similar to Cluster 1 in terms of their emotional functioning, experiencing depression and anxiety, low social self esteem, and high discomfort in acting assertively. Like Cluster 1 they exhibited an external locus of control and characteristically high harm avoidance. They were more like Cluster 3 with regard to the experience and expression of anger. Again this was consistent with their position on Figure 2.12. Cluster 4, according to this, should be low on hostility and low on sociability.

The picture that emerged of this group was comparable to similar groups reported in the literature. Henderson's (1982, 1984) Inhibited group was similar to his Secondary Psychopath group in showing generally poor social skills in a range of situations and were likely to be anxious, quiet and lacking confidence. Blackburn (1993a) found Inhibited subjects to demonstrate the greatest deficiencies in social skills.

In terms of their profile on entering the programme, and their location on the interpersonal circle reflecting low hostility and low sociability, Cluster 4 arguably came closest to reflecting the "typical" child molester discussed in the Introduction. They appeared to be very similar to Cluster 1 in terms of their emotional functioning but did not improve on tests measuring emotional functioning to the same extent. The proportion of Cluster 4 members reporting clinically significant levels of depression halved (from 85% to 45%) but those reporting trait and state anxiety did not drop significantly (81% to 62% and 62% to 58% respectively). All members showed difficulties with social self-esteem prior to treatment and while this dropped significantly post-treatment, a substantial proportion of the group (81%) still exhibited this problem after treatment.

Further, this cluster showed no significant improvements in their interpersonal skills. Those reporting discomfort in anticipation of acting assertively dropped from 62% to 33% but a high percentage (73%) of members continued to report a low probability of acting assertively. Nearly half the cluster (46%) reported continuing to fear intimacy at the end of the programme (compared to 69% before) and half reported continuing experiences of loneliness (compared to 73% prior to treatment). All members of this cluster reported clinically significant levels of social avoidance and distress prior to treatment. This dropped to 68% post treatment but this

proportion is still high given the centrality of this feature to members of this cluster's presentation.

Regarding sexual attitudes, beliefs and fantasies they showed reduced hostility towards women (85% demonstrated this prior to treatment and 52% after treatment) and, as with all the other clusters, a reduction in their reliance on impersonal sexual fantasies (58% reported using these prior to treatment and 28% after). From this, Study 2 concluded that they made the least progress of all the clusters during treatment.

Examination of the post-treatment MCMI's of this cluster revealed decreases on each of the predominant scales in their profiles. Mean BR scores on the Schizoid scale dropped from 88 to 76. Mean BR scores on the Avoidant scale dropped from 92 to 67. Mean BR scores on the Dependent scale dropped from 85 to 71. Thus, while the topography of the profile was largely unchanged there was some evidence for a decrease in the extremities. Overall the clinically significant personality features that defined this group prior to treatment remained intact after treatment. Given their similarity to the "typical offender", and the amount of the programme that was applicable to their issues, this is notable. The content of the treatment programme is well configured to address the range of issues these men present with and yet they appear to be among the most resistant to change on available measures.

Having compared the clusters found in Study 1 on the clinical measures used in Study 2, Studies 3 and 4 went on to consider the offending behaviour of the four clusters in terms of official summary data available (offence history), and data recorded on police files, respectively. These studies will be discussed in the next section.

3.5 Personality types and sexual offending against children

Studies 3 and 4 focused on a range of offence-related factors that considered previous patterns of offending, risk measures related to further offending, actual re-offence rates and, in Study 4, a detailed breakdown of the offence *modus operandi* of cluster members. Overall, the differences that were found between the personality-based clusters on dynamic factors considered to be associated with offending were not sustained when the clusters were compared on data more closely related to offending behaviour.

The clusters did not differ in terms of their selection of current victims or in terms of their observed preference for victims over time in respect to age or gender. So while Cluster 4 looked most like the preferential child molesters described in the literature, this was not borne out in their selection of victims by age or gender. Although not significant, Cluster 4 did have proportionally the greatest likelihood of offending against victims aged 6-11 but all offenders who had offended against victims aged five or younger actually belonged to Cluster 1 or 3. The clusters did not vary in other offence-related aspects such as their relationships to victims, the duration of their offending, or the number of victims over their career.

Beyond victim selection the clusters were compared in terms of conviction and sentencing histories. They did not differ in terms of their current sentence length, the mean number of previous convictions or prison sentences for sexual offences, or the mean number of convictions for non-sexual offences. In fact only one significant difference emerged when the clusters' current and previous offending were examined. Members of Clusters 3 and 4 were more likely to have been convicted of Indecent Assault as their current offence. This is consistent with the hypothesis that those in the low hostility half of the interpersonal circle should be more likely to commit less intrusive (non-penetrative) offences but the second half of this expectation (that those in the hostile half of the interpersonal space would be more likely to have committed intrusive offences) was not borne out by the results. It is therefore unlikely to have great bearing on the present exploration.

Clusters 1 and 2, both characterised psychometrically by higher levels of hostility, were not more likely to have actually used violence in their offending, according to the convictions they received. The four clusters did not differ in terms of their use of threats, weapons, or violence, or in terms of their offending resulting in physical injury to a victim. As noted in the study these general findings were not consistent with previous research. Blackburn (1975) for instance found that Primary and Secondary Psychopaths have criminal convictions at an earlier age than the Controlled and Inhibited groups but Primary Psychopaths have the most convictions for assaultative crimes (not necessarily related to child sexual offending).

Most of the data used in Study 3 were taken from official records. They were augmented by information gained by therapists during the programme. It could be said that these data had high fidelity but low bandwidth. They had high fidelity to the extent that a conviction for a sexual offence, whether prior or subsequent to undertaking a programme, was a clear marker of sexual behaviour, but low in bandwidth to the extent that the behaviour being considered was narrow in range and related to specific acts at the time of the offence. Different behaviour carried out by

different individuals could attract the same label in terms of a conviction. Moreover, similar behaviour could attract different convictions (e.g. sexual intercourse with a minor could lead variously to convictions of incest, unlawful sexual connection, or sexual violation). A limitation of Study 3 was that these convenient legal categories could have been masking a range of specific offence-related behaviours. It was this limitation, and the failure to find significant differences in available measures of offending behaviour, that led the researcher to undertake Study 4, a detailed coding and analysis of offence-related information taken from an independent source – police files.

In Study 4 however there were again few discernable differences between the clusters, and by these accounts they used comparable means of undertaking their offences. Above, Study 3 was said to possess high fidelity but low bandwidth. It could be said that Study 4 came to suffer the exact opposite problem. Using a large number of variables provided extraordinary bandwidth but the fidelity of each measure was compromised by the source data. Attempts to balance these two extremes out through data reduction techniques failed to resolve the problem. Addressing the limitations of Study 4 would require agencies such as police to reliably code offender's behaviour at the point they are investigating it.

A number of additional issues may have influenced the failure to find differences between the clusters in terms of offence-related factors. First, the sample used was relatively small and, when subdivided into four groups, large differences on measures would have been required to achieve statistical significance. On the other hand, using a sample of sufficient size that smaller differences become statistically significant does not improve the chances of these differences reflecting degrees of change that are of significance to a clinician. Second, and related to this, was the low base rate of many of the offence-related measures being considered. For example child molesters are known for their low re-offence rates compared to other offender groups and true to this form only eight members of the entire sample were reconvicted of sexual offences after completing the programme. So the likelihood of finding significant differences between subgroups with such a low rate was small. A third related matter was the selectivity of the sample. Offenders in the sample attended the Kia Marama programme voluntarily and may not represent the complete population of child molesters. It is possible that they represent a (self) selected subgroup of the child molester population that is restricted in terms of some of the measures being considered. This was most evident when risk of re-offending was considered (the sample was, on average, at low risk compared to other child molesters for committing further offences) but may have been present in other measures under consideration in the studies. So again the chances of finding significant differences between the clusters were reduced because of this.

Granting these issues, the current studies did not offer support for a hypothesis that offenders of different personalities offend in different ways, consistent with their personality. There is a range of clinical and theoretical implications from these findings that are discussed in the next two sections.

3.6 Clinical Implications of the Results

Andrews and Bonta's psychology of criminal conduct has had a major impact on clinical work with offenders. Three principles derived from this literature have been used to guide a best practice approach to interventions with offenders aimed at reducing the likelihood that they will re-offend in the future. The first three principles (the risk, needs, and responsivity principles) form a useful triumvirate from which to consider who to intervene with, what factors to address with these individuals and how best to tackle these factors¹⁰. Given the prominence of these principles in the literature on the psychology of criminal conduct they will be used to organise the following discussion on the implications of the current findings for clinicians working with child molesters.

Implications for risk

The first matter to consider is the potential implication for risk prediction and management of the present findings. A strong advantage of any typology of any offender population is the extent to which it is able to distinguish between those who represent different levels of risk for future offending. In view of the results, the implications for risk prediction and management from the current studies appear to be negligible. On the other hand some links to risk were evident and the possibility remains that with an improved methodology firmer links could be established. These matters will now be discussed in more detail. Finally, in this section some discussion is offered on the construct of psychopathy and its relationship to the present results.

Study 3 explored the possibility that the four clusters derived in Study 1 would vary in terms of their subsequent offending after release from prison. Had this been found the conclusion that the clusters pose differing levels of *risk* for re-offending would have been considered. Taken a step further, consideration could have then been given to factors that may have contributed to this risk differential. Such factors could have been the aspects of personality used to divide the clusters or any combination of the other factors on which they were found to vary. This approach has

¹⁰ This is not to say that Andrews and Bonta give particular attention to applying these principles to sex offenders. Indeed in their key text, *The Psychology of Criminal Conduct* (Andrews & Bonta, 2003) they consign sex offenders to a separate chapter on exceptional offenders. Most of the discussion is on risk and treatment of these offenders.

identified the personality-related construct of psychopathy as being a useful predictor of future violent offending. Psychopathy has also been shown to be a good predictor of sexual offending (Quinsey, Rice, & Harris, 1995) but its utility as a predictor is limited by the low incidence of psychopathy in the child molester population. This left the possibility that other personality factors, or indeed other personal factors, might provide indicators of risk in the child molester population. More will be said about psychopathy below.

The results reported in Study 3 showed that the clusters did not in fact vary in terms of actual re-offending or on the STATIC-99, a validated actuarial risk assessment. Examination of the items of the STATIC-99 indicates that the clusters varied on few of them. As noted above however a feature of the sample used in the current studies was the overall low average risk they posed. This may have affected the likelihood of achieving significant differences between any subgroups. Moreover, given the low risk scores, and the absence of any differences between the clusters on a risk measure, it was perhaps even less surprising that few differences emerged between the four clusters in terms of actual reconvictions. On the face of the results however, personality was not found to predict the type of offence-related factors that are known in turn to be good predictors of future offending.

So, dividing the population of child molesters on the basis of their personality, along lines used previously with other offender populations, was not immediately fruitful in terms of separating high-risk offenders from lower risk offenders. But some trends were evident in the data that are worth commenting on.

First, it was noted that Cluster 1 had the greatest number of offenders reconvicted for sexual offences (although this did not reach statistical significance). Five of the eight offenders reconvicted for sexual offences (63%) came from Cluster 1. Cluster 1, with 38 members accounted for 35% of the sample. This at least hints that membership to Cluster 1 is associated with risk of further sexual offending.

Second, Clusters 1 and 2 led, in terms of the mean number of convictions, when members were reconvicted. Cluster 2 had the shortest duration to re-conviction. When *any* conviction following release was considered, differences between the clusters offending approached significance. A quarter of Cluster 1 and one third of Cluster 2 went on to commit any offence compared to 11 and two percent respectively of Clusters 3 and 4. So the trend is for membership to Clusters 1 and 2 to be more associated with risk of re-offending than membership to Clusters 3 and 4. This trend is

consistent with earlier studies showing primary and secondary psychopaths to be more prone to criminality.

The presence of this trend led to an attempt to further determine what role personality might play in determining risk in the sample. The way the clusters had been divided meant that each shared some similarities with the other clusters. Consistent with their location around the quadrants of the interpersonal circle they share aspects with their latitudinal and longitudinal neighbours and are most distinct from their diagonal opposites. It was possible therefore that the way the clusters had been generated masked some personality factors related to risk. To address this the last part of Study 3 departed from the exploratory path set by Studies 1 and 2 and compared the MCMI profiles of offenders who went on to commit further sexual, violent, general, or any re-offending with those who did not.

Offenders who went on to commit further sexual offences had significantly higher scores on the Antisocial scale than those offenders who did not re-offend sexually. This was consistent with research (e.g. Gendreau, Little, & Goggin, 1996) showing anti-social personality traits to be amongst the strong predictors of recidivism. It was also consistent with the trend observed above that members of Clusters 1 and 2 were more likely to re-offend sexually than Clusters 3 and 4 in that one of the scales that distinguished Clusters 1 and 2 from Clusters 3 and 4 was the Antisocial scale. Sexual re-offenders had higher scores (approaching significance) on two further scales: Histrionic (a feature of Cluster 2), and Passive-Aggressive (a feature of Cluster 1).

A similar, although not identical, pattern emerged with the offenders who went on to commit violent offences. The re-offending group had a significantly higher mean score on the Passive-Aggressive scale (a feature of Cluster 1) and a significantly lower score on the Compulsive scale (a feature of Cluster 3). The offenders who were reconvicted for general offending did not differ significantly from the non-re-offending group on any of the scales although their higher scores on the Passive-Aggressive scale approached significance. Topographically their profile was similar to the other re-offending profiles. When the twenty offenders who had been reconvicted for any offence were compared with those with no reconvictions only their scores on the Dependent scale (a feature of Cluster 3) were significantly lower than the non-re-offending group.

Overall then the Antisocial, Passive-aggressive, and, to a lesser extent, the Histrionic scale, were positively associated with risk. The Dependent and Compulsive scales were negatively associated with risk. In terms of the interpersonal space then, it was the hostility axis (on which Clusters 1

and 2 are located at the high end) that appeared to account best for risk of re-offending. Overall Study 3 indicated that hostility, reflected in the Antisocial and Passive-Aggressive scales, was the strongest predictor of re-offending amongst the personality attributes measured by the MCMI.

Risk and psychopathy

Due to its association with risk prediction (Harris, Rice, & Cormier, 1989; Hart, Kropp, & Hare, 1988; Serin, Peters, & Barbaree, 1990), and its relationship to antisocial personality traits, the construct of psychopathy requires particular mention. Chapter 3 reported on studies showing child molesters to have lower scores on measures of psychopathy than rapists (Harry, Pierson, & Kuznestov, 1993), and for the incidence of psychopathy to be lower amongst child molesters than other sex offenders (Hare, 1996). It was suggested that psychopathy ignores other constellations of personality traits found in child molesters and that this might contribute to its predictive limitations. This limitation was used to support the consideration of other personality constellations present in the child molester population.

The implications for the construct of psychopathy of the present results are not straight forward because of some apparent contradictions. On one hand, members of Clusters 1 and 2 (who strongly resemble so-called secondary and primary versions of psychopaths respectively) were statistically not more likely to re-offend than members of Cluster 3 and 4. On the face of this finding then, psychopathy appeared to offer little in terms of risk prediction for this group of child molesters. On the other hand, as the discussion above indicated, there were trends in the re-offending results that, although not significant, did indicate that members of Clusters 1 and 2 were at greater risk of re-offending sexually than members of Clusters 3 and 4. Further, when the personality profile of re-offenders was compared to those who had not re-offended, it was the Anti-social scale that distinguished between the groups. Antisocial personality is conceptually linked to psychopathy, with the terms psychopathy and antisocial personality disorder sometimes being used interchangeably (e.g. Hare, Hart, & Harpur, 1991; Lilienfeld, 1994; Hare, 1998). Indeed literature on psychopathy informed the attempts to develop explicit diagnostic criteria for the disorder in the various editions of the Diagnostic and Statistical Manual (e.g. APA, 1980), which, within this nomenclature, became known as Antisocial Personality Disorder.

Antisocial Personality Disorder is one of the measures that Clusters 1 and 2 share and that distinguishes them from Clusters 3 and 4. So it seems that while members of Clusters 1 and 2 did not possess sufficiently strong traits of psychopathy (in Hare's terms) to warrant the label

“psychopath” (in Hare’s terms) they were certainly distinguishable by their antisocial traits, which in turn have some links to psychopathy.

To explore this issue further some additional analysis was undertaken that was not reported in the studies. Study 1 reported that the four Clusters did not differ significantly in terms of PCL-R scores and that the overall mean PCL-R score was very low. To consider the aptness of the primary and secondary psychopath labels for Clusters 1 and 2 they were combined to form one larger group and compared to members of Clusters 3 and 4 on the PCL-R. The mean PCL-R score for the combined Cluster 1 and 2 group was 7.9, and the mean score for the combined Cluster 3 and 4 group was 5.2. This difference was significant ($F(1, 104) = 4.582, p=0.0346$). So while Clusters 1 and 2 were, on average, a long way from the cut-off score of 30 on the PCL-R they were significantly “more psychopathic” than members of Clusters 3 and 4 combined, although it must be noted that both of these scores are low.

But can it be said, given Hare’s cut-off, and his view that psychopathy is a taxon, that Clusters 1 and 2 were “more psychopathic” than members of Clusters 3 and 4? Andrews & Bonta (1998) asked, “at what point does one become a psychopath?” and beyond Hare’s there are numerous competing conceptualisations of psychopathy. Blackburn (2005) has argued that Hare’s use of the term has drifted considerably from its Clecklian (and earlier) roots. This leaves open the prospect that psychopathy is indeed a dimensional rather than categorical construct. If this were shown to be so, it would arguably be permissible to talk about degrees of psychopathy. Further, some authors have argued that psychopathy may well have “phenotypically” (as opposed to “genotypically”) distinct subgroups, such as the primary and secondary distinction employed in the research influencing the present study (Blackburn, 2005).

The notion of *vector length* discussed in Chapter 3 of the Introduction might be a useful means of distinguishing between the psychopathy defined by the PCL-R cut-off and what is being observed in Clusters 1 and 2 in the present study. As discussed in Chapter 4, Harpur, Hare & Hakstian (1989) found that full PCL scores fall in the coercive-hostile area of the interpersonal circumplex. This suggests that psychopathy (in Hare’s terms) may be broadly equated with the coercive-compliant axis of the interpersonal circle. This fits with the location of Clusters 1 and 2 at the high end of the hostile axis in Blackburn’s version of the interpersonal space. It is also consistent with early notions of the psychopathic character being a variant of narcissistic personality disorder. In this respect psychopaths have been described as “malignant narcissists” displaying degrees of aggression and sadism not present in the more “benign” personality

disorder (Meloy, 1998). Cluster 2 has a very elevated mean score (BR=80) on the Narcissistic MCMI scale. Cluster 1, while it is not elevated to a clinically significant level still has a score on the Narcissistic scale higher than Clusters 3 and 4.

So in terms of orientation in the space, Hare's psychopaths and Clusters 1 and 2 are close. What might then distinguish them is vector length, or distance from the centre point of the interpersonal space. Hare's psychopaths may be located further from the origin in the interpersonal space, in the direction of coerciveness, than typical members of Clusters 1 and 2. The PCL-R scores of the clusters support this idea. Limited additional support comes from determining which clusters individuals whose PCL-R scores are over 30 belong to. Actually only two offenders of the 106 in the sample for whom PCL-R data were available had scores over the cut-off of 30 used by Hare to identify psychopaths. One of these was from Cluster 1. The other was from Cluster 2.

To further explore the role of psychopathy in risk assessment of child molesters some additional analysis was carried out following the completion of the studies. Study 3 reported on the MCMI profiles of offenders who went on to commit sexual, violent, general and any other offences. These results have been discussed above. The groups who went on to re-offend were subsequently compared in terms of their PCL-R scores. In each instance significant differences were found. Those offenders who went on to be convicted of further sexual offences had a mean PCL-R score of 14.7 compared to a mean score of 5.9 for those offenders who did not go to be reconvicted ($F [1,98] = 13.329, p = 0.0004$). Those offenders who went on to be convicted of further violent offences had a mean PCL-R score of 12.7 compared to a mean score of 5.9 for those offenders who did not go to be reconvicted of violent offences ($F [1,98] = 9.509, p = 0.0002$). Those offenders who went on to be convicted of further general offences had a mean PCL-R score of 12.8 compared to a mean score of 5.9 for those offenders who did not go to be reconvicted of general offences ($F [1,98] = 16.161, p = 0.0001$). Those offenders who went on to be convicted of any further offences had a mean PCL-R score of 11.4 compared to a mean score of 5.5 for those offenders who did not go to be reconvicted of any offences ($F [1,98] = 14.115, p = 0.0003$).

It can be said then that on average sex offenders who go on to receive further convictions can be distinguished from those who do not by their PCL-R scores. Those reconvicted had, on

average, PCL-R scores well below the cut-off for labelling them psychopaths¹¹. Unfortunately further analysis could not be carried out to compare differences between those reconvicted and those not in terms of individual PCL-R items or scores on Factor 1 (commonly described as measuring the personality aspects of psychopathy, or at least its affective and interpersonal features) and Factor 2 (commonly described as measuring criminality, social deviance, or antisocial lifestyle) because only full scores on the PCL-R were coded for analysis in the initial stages of this research. It was not anticipated that item analysis would be required. Related to this Serin (1996) found that Factor 1 was a better predictor of violent recidivism than Factor 2 in a sample of 81 offenders. This suggests that the personality-based construct of psychopathy may make a unique contribution to prediction of re-offending over and above factors based on previous anti-social behaviour. Others (e.g. Walters' 2003 meta-analysis) have found Factor 2 to exceed Factor 1 in the prediction of violent and non-violent re-offending. This is consistent with the view that antisocial behaviour is the best predictor of further antisocial behaviour. It seems the simplest way to resolve this apparent discrepancy is to go with Hare's often-repeated view that Factor 1 and Factor 2 make unique contributions to prediction but the best predictor is a combination of the two.

Another way of looking at these results is that, with the exception of the two high scorers, the small number of child molesters in the sample who went on to receive further convictions did so in the *absence* of psychopathy by Hare's definition. So while psychopathy may be predictive of some re-offending it is not necessarily explanatory. A discussion on explaining offending is best addressed under the consideration of needs that follows.

In concluding this discussion on personality the four personality-derived clusters did not differ in terms of their risk of re-offending or in terms of actual re-offending so the typology does not in itself make a strong contribution to risk assessment in child molesters. But there were a number of trends present in the data that were important to note. Members of Clusters 1 and 2 were more likely to re-offend than members of Clusters 3 and 4 (although this was not significant). When the personality profiles of re-offenders were compared to that of those who did not re-offend the factors that significantly distinguished these two groups (those reflecting hostility) were generally the factors that distinguished Clusters 1 and 2 from Clusters 3 and 4. On the basis of this finding then, a two-cluster solution (high and low on hostility) may be a more fruitful means of considering any link between personality and risk.

¹¹ Of the two offenders in the sample who had PCL-R scores over 30 one went on to be reconvicted of further general offences. The other was convicted of further sexual, violent, and general offences.

The personality-derived clusters were found not to differ on the PCL-R, a measure shown to be a strong predictor of violent offending. When Clusters 1 and 2 were combined, and Clusters 3 and 4 were combined significant differences were evident. Consistent with the Primary and Secondary Psychopath labels associated with them members of Clusters 1 and 2 combined are “more psychopathic” than members of Clusters 3 and 4. Furthermore those offenders who went on to be reconvicted of sexual, violent, general or any re-offending were significantly “more psychopathic” than those not reconvicted even though only two offenders had scores over the cut-off point for identifying psychopathy on the PCL-R.

Combining these trends it is apparent that both location (in terms of the hostility axis) and vector length (in terms of the extremity of a trait) may both be important in understanding the role that personality has regarding risk. The trends observed in the present studies may warrant some further analysis on larger samples of child molesters who show a greater range of risk for sexual re-offending (e.g. on the STATIC-99 or similar measure) and who have not necessarily been self-selected to the extent that a treatment group may have been. Following this discussion on risk the next section moves to consider the second important domain of consideration offered by the psychology of criminal conduct: needs.

Implications for needs

The idea of a range of needs driving offending has been around for some time (Groth, Hobson, & Gary, 1982; Murphy, Haynes & Worley, 1991; Finkelhor, 1984; Neubeck, 1974). The psychology of criminal conduct has focused the discussion on needs related to offending by distinguishing criminogenic needs from non-criminogenic needs (Gendreau & Little, 1994). Criminogenic needs are dynamic in nature and are associated with a risk of re-offending. Criminogenic needs are commonly identified by their statistical association with offending, and by evidence that when they are reduced or managed the subsequent likelihood of further offending is also reduced. Examples of criminogenic needs are an offender’s attitudes and behaviours regarding employment, education, peers, authority, substance abuse and interpersonal relationships that lead to conflict with the law. Non-criminogenic needs are not statistically associated with offending.

A limitation of using lists of statistically derived criminogenic needs to guide interventions with offenders is that they cannot be automatically applied to individuals. Even when a common criminogenic need (alcohol or drug misuse for instance) is present in an individual, it cannot automatically be assumed that its presence contributed to offending. Beyond statistical trends one

way that needs are identified for individuals in a clinical setting is through functional analysis (Repp & Horner, 1999), in which the presence of factors (needs) is seen to contribute functionally to the occurrence of the behaviour (offence).

A common way of undertaking such an analysis is by the approach used at Kia Marama and other treatment programmes to create an "offence chain", a cyclical sequence of cognitive, behavioural, affective and physiological events that occurred in the lead up to the commission of an offence. From the clinician's point of view no two offence chains are identical, although many may include common elements. The task for the offender and the clinician is to develop a chain that contains all the necessary components to provide a convincing account of how the offence occurred while not including elements that are unnecessary. Done thoroughly this process may identify items that go beyond the list of commonly accepted criminogenic needs in order to develop a complete account of the offences. It may include "vulnerability factors" (Marshall & Barbaree, 1990) that are said to interact with more transient situational factors to determine sexual assault. According to interpersonal theorists (e.g. Millon 1981, 1990) individuals engage in behaviour to meet different interpersonal needs. By extension then different offenders can be considered to engage in offending behaviour to meet different interpersonal needs.

The first observation to make about the personality-derived clusters is that each has a distinct set of criminogenic needs. A crude way to illustrate this is to assume that a score above the threshold of the psychometric tests used at Kia Marama is an indication of a need that is potentially involved in the individual's offending.

If the mean score of the clusters on each of these measures is taken as an indication of the presence of a need then the clusters can be distinguished in terms of needs as in Table 2.60¹². Before commenting further a number of observations need to be made about the entries in this table. First the entries for depression were made on the threshold for moderate rather than mild depression, as mild forms of depression are extremely common within prison populations. Secondly, according to this method, none of the clusters have cognitive distortions related to adult sexual contact with children. In view of the source of the study group this seems improbable, and is more likely to be the combined reflection of the highly transparent nature of this test and a strong willingness on the part of a large number of the sample to present favourably. Thirdly, the ratings for the sexual fantasy items were based on the scale averages and on the assumption that, given their offences,

¹² The mean scores are reported in Tables 2.33, 2.36, 2.37, 2.38. The thresholds are reported in Table 2.42

Table 2.60: Presence of needs for the four clusters on the basis of average scores on a range of psychometric tests covering four domains

		Cluster			
		1	2	3	4
Emotional Functioning					
Depression	(BDI)	Y	N	N	Y
Anxiety – State or Trait	(STAI-S, STAI-T)	Y	N	N	Y
State anger	(STAXI)	N	N	N	N
Trait anger	(STAXI)	Y	Y	N	Y
Anger expression	(STAXI)	Y	Y	N	N
Anger suppression	(STAXI)	Y	Y	Y	Y
Anger control	(STAXI)	Y	N	N	N
Social Self Esteem	(SSEI)	Y	N	Y	Y
Interpersonal skills					
Assertion Discomfort	(AI-D)	Y	N	N	Y
Assertion Response Probability	(AI-RP)	Y	N	Y	N
Fear of Intimacy	(FIS)	N	N	N	Y
Loneliness	(UCLS)	Y	N	N	Y
Social Avoidance & Distress	(SADS)	Y	N	N	Y
Self Perception					
External Locus of Control	(ANSIES)	Y	N	N	Y
Sexual Attitudes and beliefs					
Cognitive Distortions	(ABCS)	N	N	N	N
Hostility Towards Women	(HTWS)	Y	Y	Y	Y
Rape Myth Acceptance	(RMAS)	Y	Y	Y	Y
Exploratory sexual fantasies	(WSFI)	Y	Y	N	N
Intimate sexual fantasies	(WSFI)	N	N	N	Y
Impersonal sexual fantasies	(WSFI)	Y	Y	Y	Y
Sado-masochistic sexual fantasies	(WSFI)	Y	Y	Y	Y

these men should actively reduce their use of exploratory, impersonal, and sado-masochistic fantasies and increase their use of appropriate intimate fantasies involving a consenting age-peer. Finally scores on the Marlow-Crowne Social Desirability Scale were not included in this comparison. This measure is most usefully considered as an indication of test taking attitude rather than as an indicator or a potential need to be targeted in intervention¹³.

The provision of this table is intended to illustrate in a simple way the differing needs profiles of each of these clusters. Only on state anger, anger suppression and four of the scales measuring aspects of sexual attitudes were the clusters indistinguishable. Given their offences, their similarities on sex-related matters are understandable. A common pattern, observed in six of the 21 scales reported in the table, is for Clusters 1 and 4 to show similar sets of needs. Both display evidence of depression, anxiety assertion discomfort, loneliness, social avoidance and distress, and an external locus of control. They are distinguished from members of Clusters 2 and 3, who do not demonstrate these features.

Members of Clusters 1 and 4 should have offence chains that look similar in these respects. But they would not be identical because members of Clusters 1 and 4 differ with respect to other needs (anger expression, anger control, fear of intimacy, assertion response probability, exploratory and intimate sexual fantasies) and their offence chains should reflect these differences. It is interesting to note that Cluster 4 is the only cluster whose fear of intimacy exceeds the clinical threshold and they are the only group who uses intimate sexual fantasies more than the average. Given the co-occurrence of fear of intimacy and greater than average use of intimate sexual fantasies, the offence chains of these offenders would likely include a search for intimacy in children who are perceived as non-threatening. Members of Cluster 1 on the other hand, who share many of the needs of Cluster 4, have a greater tendency to externalise anger and less ability to control it and no apparent fear of intimacy. Their offence chains would accommodate these needs by not emphasising a search for intimacy but more probably incorporating hostility as a driver of their offending.

Clusters 2 and 3 have fewer of the needs that might be considered deficits. They have internal loci of control, do not suffer anxiety, depression, loneliness, social avoidance and distress, or discomfort at the prospect of acting assertively. These offenders are less likely to have offence chains in which sexual offending against children is viewed in part as compensation for deficits. Their offending is perhaps more driven by deviant sexual attitudes and beliefs (common to all the

¹³ Out of interest though all but Cluster 1 demonstrated “faking good” response styles.

clusters). Clusters 2 and 3 have features that distinguish them from each other. Cluster 2, with needs around trait anger and external expression of anger, may simply be acting out aggression in a sexual way with vulnerable children, in line with their sexual fantasies. Members of Cluster 3 do have some deficit needs, although not to the extent of Clusters 1 and 4. They have low self-esteem and a low probability of behaving assertively. Their offence chains would possibly include these features.

So what are the implications of the present series of studies for a consideration of the needs of child molesters? First, it is clear from Study 2, and from the simple illustration above, that not all child molesters have the same sets of needs. The profile of needs for each cluster is different from the overall profile of the sample. The clusters vary in terms of the range and extent of the deficits they display. Secondly, as illustrated by the table above, the common set of needs assessed for the sample does not occur in a random fashion. The presence or absence of needs is generally consistent with the clusters' locations on the interpersonal space. It benefits clinicians to know this. Knowing the personality profile of an offender can assist a clinician to predict what needs or vulnerability factors will have to be considered for inclusion on a comprehensive offence chain for the offender. Developing the offence chain can then include hypothesis testing rather than simply developing the chain up from scratch. Thirdly, placing the needs of offenders into the framework offered by personality provides an opportunity to conduct a deeper analysis of why an individual harbours such needs, and what can be done to address them and maintain positive changes. The literature on interpersonal psychology reviewed in the Introduction provides a context in which to examine and address the key needs associated with an individual's offending.

The literature reviewed in the Introduction discussed the descriptive approach taken by personality researchers over the last two decades. These researchers considered personality traits as descriptive summaries of the attributes of an individual. In seeking to account for the individual differences in the way people behave, researchers have focused on the cognitions that individuals use that potentially influence their behaviour. Social cognition research (see Johnston & Ward, 1996) for instance describes how, once activated, pre-existing beliefs can influence all aspects of social information processing, including attention to and interpretation of information and the inferences and judgements made from that information. The work of Safran (1990a, 1990b) and Beck & Freeman (1990) are examples of links between cognitive-behavioural therapy and interpersonal theory that could in turn be linked to information processing models.

These approaches can be linked to the personality literature in a number of ways but one obvious way is via two (of eight) domains described by Millon (1990) as differentiating his personality types. Millon (1990) offered descriptions of his personality types on a range of domains (including interpersonal conduct, cognitive style, expressive act, regulatory mechanisms, self-image, object representations, mood and temperament). The first of these domains, interpersonal conduct, describes an individual's style of relating to others at essentially a behavioural level. For example the anti-social style is characterised by irresponsible behaviour, untrustworthiness and unreliability. The second domain, cognitive style, describes how an individual perceives events, focuses attention, processes information, organises thoughts and communicates reactions and ideas to others. For example the antisocial cognitive style construes events and relationships in accord with socially unorthodox beliefs and morals.

Cognitive behavioural approaches have been shown to be effective at treating child molesters. In determining which cognitions and behaviours (i.e. needs) to address with offenders, clinicians will consider not only those directly related to offending (offence behaviour, offence-related cognitive distortions, offence-related physiology) but more general interpersonal behaviour and cognitions that may contribute to the occurrence of the offence. These links are of interest to the clinician seeking to understand and treat the needs of a child molester. The clinician will be looking for attributes and developments across the offender's lifespan that illuminate the path that led them to offend. The astute clinician will be interested in how the offender typically behaves with other people, the reactions this typically evokes in other people and the "cognitive-interpersonal cycle" (Safran, 1990a) that results. The clinician will also be interested in how the offender views himself, others, and the world; and what expectations he has of each of these. As noted in Chapter 2 cognitive distortions that arise during the offence result from the offender's selective attention to social information that is consistent with his pre-existing beliefs. While these are not "vulnerability" factors, in the sense that vulnerabilities refer to deficits or the absence of strengths, and while they do not "cause" offending, in that they are just as likely to occur in non-offenders as they are in offenders, they do come into relief once an individual has offended and consideration is given to the path that the individual took to that point.

A further issue related to need has general implications for the overall content of programmes and hence the relevance of a programme to an individual. Study 2 showed that different offenders have different needs. These have been simply summarised in Table 2.60. Despite these differences there has been a tendency to design programmes that cater to the needs of the "average" offender. The Kia Marama programme, for instance, has modules on mood

management and relationship skills. These are broadly aligned to the emotional functioning and interpersonal skills domains reported on throughout Study 2 and evident in Table 2.60. As discussed above however the Clusters developed in Study 1 vary considerably in each of these domains. Members of Clusters 1 and 4 would require mood management skills to address depression, anxiety, and anger. Clusters 2 and 3 appear only to require assistance with the management of anger.

Much the same applies to interpersonal skills. The relationship module of the Kia Marama programme anticipates that offenders will have a range of interpersonal deficits as outlined in Chapter 2 of the Introduction (general social skills, assertion skills, intimacy deficits). On the whole they do, but deficits in this domain belong almost entirely to Clusters 1 and 4. Clusters 2 and 3 (on average at least) have few of these.

Hart (1998) noted that the proximal cause of violent crime is not psychopathy but the decision to act violently. Similarly personality is evidently not the proximal cause of sexual offending against children but may open doors to understanding what experiences and perspectives an individual brings to an offending opportunity that leads him to commit an offence rather than taking up one of numerous pro-social alternatives. The current study shows that a diverse range of individuals, in terms of their typical interpersonal and cognitive styles (as well as similar diversity amongst Millon's other domains), go on to commit sexual offences against children.

Implications for Responsivity and Intervention

The discussion above regarding the implications for the needs analysis of child molesters has follow-on implications for responsivity. The brief discussion that follows is inevitably linked to the prior discussion on needs. The responsivity principle is concerned with *how* the needs of offenders that are related to their offending are addressed.

We know from the results of Study 1 that treatment groups for child molesters will be made up of an broad mixture of personality types, and we know from Study 2 that they will have differing needs that will require attention. In addition to these differences an individual will likely display interpersonal behaviour in the group setting, which is consistent with their personality profile. Members of the group will behave, with the clinician and their fellow group members, true to their profile. Members of Cluster 2, for instance, are likely to be active participants, confident and challenging of other members. Members of Cluster 4 are likely to be more reserved and

hesitant in their participation. Viewing the behaviour of group members in this setting offers the clinician a means of observing how the individual performs in everyday life (even despite the obvious differences between a prison group for child molesters and what most of us perceive as everyday life). This is important for at least two reasons.

One reason it is important is that individuals are likely to assume particular interpersonal positions in relation to the clinician that are consistent with their overall interpersonal style. This means that the interactions that the clinician has with the individual can be tailored so that the individual is more likely to be receptive to what is being said. Millon (1987, 1990, 1996) offers details of how to work psychotherapeutically with individuals with particular personality styles. Choca, Shanley, & Van Denerg (1992) also recommend approaches for each of the three-point profiles they discuss. They suggest that an approach to treatment which presents to offenders the “type of person” they are, and the strengths and deficits they hold as an individual, provides a useful means of tailoring treatment to their specific needs.

The second reason builds on the first. If an individual is behaving in the group in a way that is typical of their style, and in a way that has been functionally linked to their offending, then this can be highlighted and addressed with the individual by the clinician. It offers the clinician the opportunity to convey a series of observations to the individual, as follows:

- that their present behaviour in group is similar to what they have reported in comparable everyday situations,
- that this tends to be their typical way of responding to such situations,
- that this way of responding has been included in their offence chain because it contributed to the build up to their offence,
- that continuing to respond to situations like this in everyday life risks triggering the offence chain again,
- that the treatment group offers an opportunity to try a different response, and
- that learning (and maintaining) a different response will reduce the risk of the behaviour contributing to future offending, thus reducing their risk of offending.

This has been discussed here because, although it is technically about addressing a need, it is also about doing so in a way that is responsive to the individual’s personality style (their typical way of behaving). It would be possible to do this to some degree in the absence of personality information, but without information on how the offender typically behaves the clinician is less

able to triangulate the information they have from observing the offender in group, and hearing accounts of what occurred in the build up to their offence.

At one extreme a totally generic programme, based on the average needs profile of the child molester population, while meeting the needs of the average, would not be fully responsive to a considerable proportion of the child molester population. The other extreme can be represented by a totally individualised intervention developed for each offender. This, it could be argued, would be completely responsive and therefore reflective of best practice. This is not necessarily so. There remain considerable therapeutic benefits to recognising and acknowledging the commonalities that exist between different offenders. Seeing a component of their own offence chain arise on another offender's offence chain can be a powerful experience for offenders in treatment. It can challenge a distorted self-assessment that they are "not as bad" as other offenders (in a multitude of respects). Taken to an extreme a totally individualised approach would be difficult to operate in any organised sense within a modular programme. It would almost certainly need to be delivered on a one to one basis. There are clear disadvantages to this beyond the likely attenuation of the cost-benefit ratio. Anyone familiar with a well-run group will know that it is the challenging and confronting which occur between the offender participants that often promote the biggest change in individuals.

It could be argued that that best practice is, in fact, the skill of balancing ones focus on the commonalities that offenders share with the differences that set them apart or make them unique. The splitting of child molesters into four clusters is consistent with this middle ground approach. It is unsatisfactory to consider the average profile of the whole, and yet in many respects unnecessary to reduce the population to its constituent individuals. Economies can be gained by chunking the population into groups with sufficiently similar sets of needs but within a framework (such as that offered by the interpersonal space) in which the needs of the groups are known, relative to each other.

Having discussed the implications for risk, needs and responsivity, this discussion will now to a consideration of any theoretical implications for the findings from the present studies.

3.7 Theoretical Implications of the Results

There are essentially four main reasons for exploring the role of personality in sexual offending against children. First, it will be recalled from the Introduction that Andrews & Bonta (1998) concluded from their own meta-analysis that the major correlates of criminal behaviour are based in personality. They marshal considerable evidence to support their view that the research has been "voluminous and overwhelmingly supportive (p46)" of personality as a correlate of crime.

Secondly, there are notable parallels between conceptualisations of sexual offending against children and conceptualisations of personality. For example, a commonly held view maintains that sexual offending against children is repetitive patterned behaviour. Laws & Marshall (1990) describe chronic sexual deviation as a "robust disposition" and Perkins (1991) refers to "vicious circles" of offending. Much is made of the chronic relapsing features of offenders (Furby, Weinrott & Blackshaw, 1989; Laws, 1989; Marshall & Barbaree, 1990). Descriptions and accepted notions of personality parallel these: "the relatively enduring patterns of recurrent interpersonal situations which characterise a human life" (Sullivan, 1953). As an aside Chesire (2004) goes as far as to suggest that engaging in sexual offending could itself *cause* rigid and maladaptive personality traits, or cause maladaptive traits to become even less flexible and functional. This intriguing suggestion requires further consideration. So personality, with its focus on traits, could conceivably have a role in accounting for the repetitive, cyclical behaviours that are evident in sexual offending.

Thirdly, other researchers have found differences in observed behaviour between groups that vary in terms of personality (e.g. Blackburn, 1995) so there is evidence that behaviour in a particular situation (a secure hospital ward in the case of Blackburn's study) can be predicted by their responses to a personality measure. This appears to contradict early findings that traits, being weak predictors for behaviour in specific situations, cannot provide a fundamental account of behaviour (Mischel, 1968). Mischel (1973) subsequently modified his position on this however with the adoption of interactionist approaches.

Fourthly, additional success in forming a link between personality and offending has been gained in the field of offender profiling. This field is concerned with the relationship between offence and offender characteristics. It operates on the premises that offenders differ in their actions when committing a crime, and that these differences reflect (and therefore will correlate with) overtly available features of the offender (Canter & Heritage, 1990). Research has successfully included

factors such as style of social interaction and general personality characteristics into profiling procedures (Canter, 1989) focusing on sexual offences against strangers, homicide, rape and arson.

The bulk of the profiling literature however remains concerned with identifying biographical characteristics such as age, gender, marital and employment status (Kocsis, 2003), far cries from the links sought in the present study. One exception is a study that applied offender profiling techniques to a child molester population (Canter, Hughes, & Kirby, 1998). This study found three conceptually distinct behavioural themes amongst the behaviour of their sample: aggressive, intimate, or criminal-opportunist. They found that aggressive child sex offences are likely to have been committed by offenders with an aggressive interpersonal style; criminal-opportunist offences are likely to have been committed by offenders with an established criminal history; and intimate offences are likely to have been committed by offenders for whom adult relationships are problematic.

Taken together these four approaches provided the impetus for the present studies. Accordingly, the present studies were undertaken to explore the relationship between personality and child molestation behaviour. To reiterate, Study 1 explored the personality profiles of a sample of offenders and, in particular, whether the sample could be divided into recognisable subgroups. Study 2 compared the subgroups (clusters) developed in Study 1 to determine to what extent they varied on a range of demographic and psychometric measures potentially related to offending. Study 3 considered the extent to which the clusters varied in terms of offending history, risk of further offending, and actual re-offending; and Study 4 examined the actual offending behaviour of cluster members by reviewing police files.

Given the exploratory nature of each of the current studies a number of possible outcomes could have emerged supporting a range of hypothetical models for the relationship between personality and sexual offending against children. These will be briefly discussed.

Model 1

First it was possible (although unlikely) that Study 1 could have produced a single identifiable personality profile that could not be usefully broken down into verifiable subgroups within the sample. Had this been the outcome then cluster analysis would have produced subgroups that bore no resemblance to others reported in the literature. If this had been the case then the outcome of Study 1 would have been to support a model in which one personality type commits sexual offences against children. The task then would have been to compare this to the “typical”

child molester to determine its likeness, and to non-offenders to determine any dissimilarity. If this model had been supported then possessing “the child molester personality” should have correlated with the other measures used in Study 2, been predictive of sexual offending against children (compared to non-offenders), but would not have discriminated between individuals in the sample with regards to risk or offending behaviour (because they would have been all the same).

Model 2

Model 2 represents the other end of the continuum of possibilities. In this model analysis of the MCMI profiles of the sample would have produced no discernable profile. To support this model the MCMI profiles of all the offenders in the sample would have had to be uniformly mediocre such that no high points above the clinical thresholds were evident. To the extent that it is possible to do so with such an “average” presentation, the profiles would have covered all aspects of personality evenly, that is no particular aspect of personality would be more or less prevalent than any other. Given that MCMI scores use base-rates for clinical populations this is the kind of scenario that could possibly be expected if this clinical tool was used with the general (non-clinical) population. Had this outcome eventuated there would have been little reason to compare child molesters with non-molesters on personality, to seek to divide the sample further on the basis of personality, or to compare individuals, or subgroups derived by some other means, on their personality. It would have led to a fairly swift and simple conclusion that personality is not related to sexual offending against children and that a search for a connection could be confidently abandoned.

There are a multitude of possible intermediate models between these two extremes but only two will be described here because they come close to the findings of the current set of studies.

Model 3

In Model 3 subgroups of child molesters would be found on the basis of their personality types. These types would resemble offender subtypes reported earlier in the literature so they would be considered to have some validity. In this model what separates child molesters from non-offenders is not that they exhibit a particular personality type that can be distinguished from non-offenders. On the contrary they appear to cover the spectrum of personality options. What set them apart are the extremities of these personality attributes. In this respect they exhibit personality profiles that are elevated into clinical significance. From this basis further differences are found between the sub-groups in terms of psychometric results and possibly

some demographic variables. The latter is less likely but a possibility given the findings of some offender profiling results. Under this model further differences would be found in terms of the subgroups' offending behaviour. These differences are sustained through an analysis of the types of convictions the subgroups attained, their risk of offending and their actual re-offending, and, when their offending behaviour is analysed, differences emerge that can be accounted for in terms of their personality. In this model personality plays a comprehensive role in accounting for the heterogeneity observed amongst child molesters and accounting for their offending behaviour and ongoing risk.

There are numerous possible variations on this model. The proportion of offenders assigned to various subgroups, for instance, could vary. It could be that the majority fall into one large subgroup and the remainder into several smaller groups. This would have the effect, conceptually, of moving this model closer to the extreme set by Model 1, with evidence for a predominant personality type amongst child molesters. Alternatively the population might be divided into a multitude of smaller groups reflecting slight differences. This would conceptually reflect a move towards the extreme of Model 2.

Model 4

Model 4 is also an intermediary model. Subgroups of child molesters are found on the basis of their personality types. These types resemble offender subtypes reported earlier in the literature so they have some validity. As in Model 3, what separates child molesters from non-offenders is not that they exhibit a particular personality type that can be distinguished from non-offenders. They too cover the spectrum of personality options but display extremities of these personality attributes elevated into clinical significance. From this basis further differences are found between the sub-groups in terms of demographic information and psychometric results. However, unlike Model 3, no further links to actual or predicted offending are made. In this model the power of personality to predict or understand offending behaviour ends with the vulnerability factors evident in the various psychometric tests that have some link to dynamic intra- or inter-personal functioning.

The literature reviewed in the Introduction raised serious questions about the prospect of locating a singular "personality type" amongst child molesters that distinguished them from individuals who have not sexually offended against children. The prospect of confirming Model 1 in the present series of studies then was very weak. With this in mind the method adopted in Study 1 was intended to determine which, if any, of the remaining models could be confirmed, by dividing the

sample into subgroups. Conceptually it was possible, using hierarchical cluster analysis to continue dividing the sample down to its constituent 110 members, approximating Model 2. However statistical rules supported a four-cluster solution. Further, the high scores on MCMI items made it unlikely that, at an individual level, the profiles of sample members would resemble the sub-clinical mediocre patterns required in Model 2. On these bases Model 2 can be rejected.

The finding of four clusters with clinically significant elevations on the MCMI in Study 1 indicates that the actual results support an intermediary Model of the likes of Models 3 or 4. Cluster membership on the basis of MCMI scores was predictive of a number of factors that could be broadly described as vulnerability factors in Study 2. The predictive power of the model was exhausted at this point however and failed to predict previous offending behaviour, risk of future offending, or actual re-offending. The actual model that is most strongly supported by the current four studies is Model 4 above.

From this exercise it is possible to hypothetically locate the role of personality in accounting for sexual offending as in Figure 2.16. At the left of the figure, represented by the Big Five, is the breadth of possible personality traits exhibited by humans. The distance between the two directional arrows illustrates the breadth of this. At this point they are at their maximal distance apart. Personality, represented by the Big Five, has been placed in the diagram at this stage to signify that no personality style provides total immunity from committing sexual offences against children, but that the given prevalence of particular personality traits within an individual will influence the pathway they take towards offending. Subsequent intermediate steps increase the likelihood of an offence occurring. Moving in a direction from left to right factors become more proximal to the offending. As factors accumulate across the “spectrum”, the trajectory becomes more clearly one of offending. Proximal factors are influenced by more distal factors.

There are clear relationships between the Big Five conceptualisation of personality and the interpersonal circle discussed in Chapter 3. The five-factor model provides a comprehensive super-ordinate taxonomy of individual differences that includes a simple-structure representation of the interpersonal dimensions of surgency/ extraversion and agreeableness (Wiggins & Pincus, 1992). A complete diagram, then, could include a representation of the interpersonal circle immediately next to the Big Five. To keep the diagram simple this has not been included.

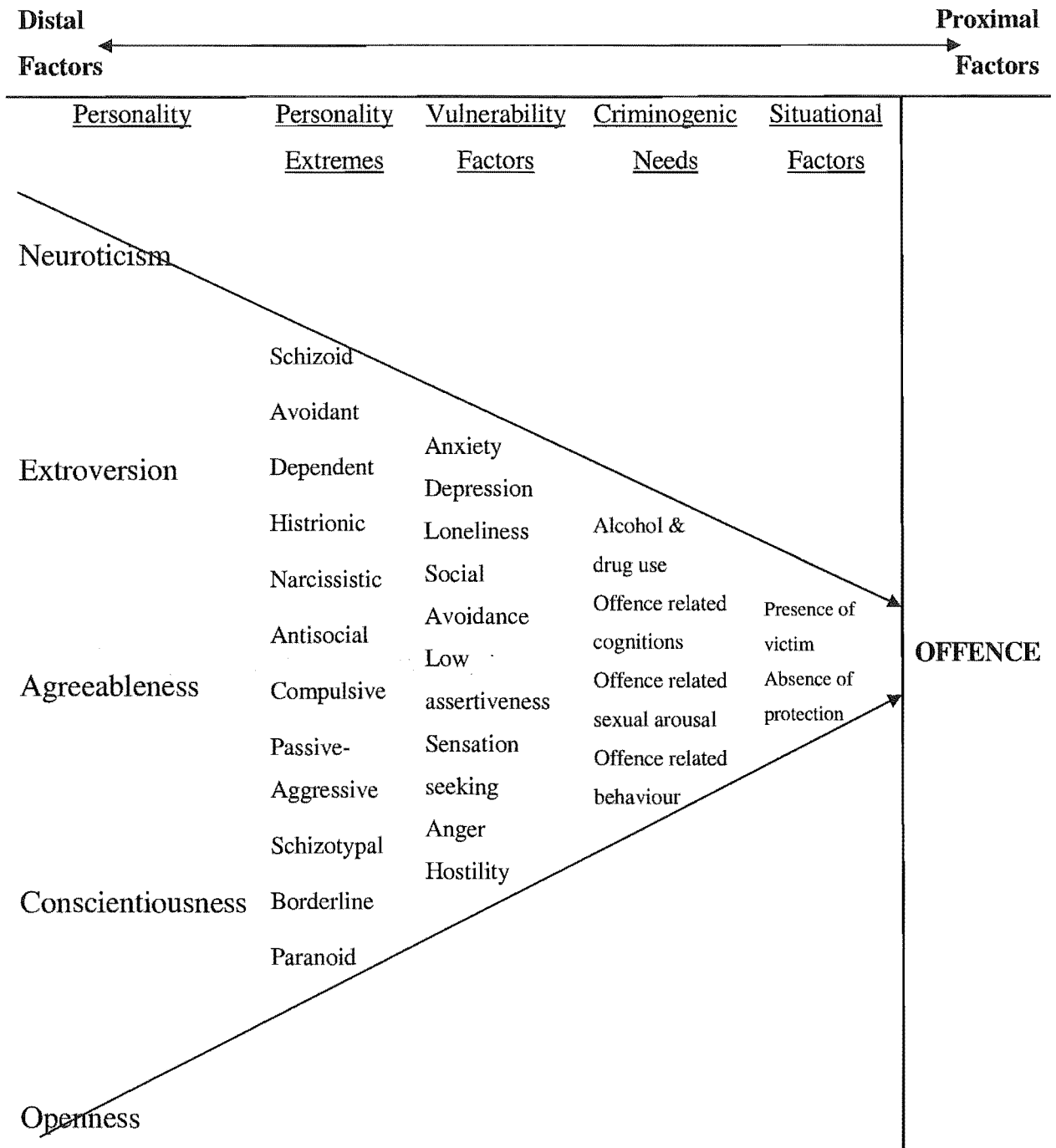


Figure 2.16 Personality as an influencing factor on offending

Next then are “personality extremes”. The more extreme these become the more likely they are to be recognised as personality disorders, but they have not been labelled here as such to keep the model as open as possible and to avoid the complexities of diagnosis. Support for linking the Big Five to personality disorders was reviewed in Chapter 3 in the Introduction. Soldz, Budman, Denby, & Merry (1993) found the personality disorders could be meaningfully mapped onto the Big Five factor space. Widiger & Costa (1994) found substantial correlations between the Big

Five and measures of several personality disorders. Factors extracted from clinical assessments of DSM personality disorders have been interpreted as reflecting variants of the Big Five (Widiger & Frances, 1994), and factor analysis of interview measures of the 11 DSM-III personality disorders obtained from violent offenders supports this proposal (Blackburn & Cloid, 1998). The personality extremes reflect the possible elevations on the MCMI. They could of course be ordered to reflect the four clusters found in Study 1 but have simply been listed here. At this point in Figure 2.16 the distance between the two arrows is closing, signifying that not everyone in the general population will experience these extremes.

Next are vulnerability factors. The list here is not exhaustive but represents the major factors measured by the psychometric tests in which differences were found between the clusters. So, based on the findings of Study 2, the model assumes a relationship between the presence of certain personality extremes and the presence of certain vulnerability factors. These are listed, approximately, in line with the aspect of personality that links to them, again reflecting the findings of Study 2. The next list contains criminogenic needs. Again this list is not exhaustive but represents the major criminogenic needs associated with sexual offending against children. In this model criminogenic needs are linked to vulnerability factors. They may develop directly from vulnerability factors, for instance in the case of offence related cognitive distortions around a victims “deserving what she gets” influenced by anger and hostility. Alternatively they may be established to compensate for them, for instance in the case of alcohol or drug use becoming established as a means of coping with anxiety or depression. Because of their nature they are likely to have a more direct influence on offending behaviour. The line between vulnerability factors and criminogenic needs is likely to be somewhat blurred with the degree to which a need is indeed criminogenic increasing as it combines with other needs. For instance alcohol consumption per se is not necessarily criminogenic but may exist as a vulnerability factor. If it is paired frequently with offence-related cognitions and arousal it may acquire a criminogenic quality. The final list consists of situational factors necessary for an offence to occur. The narrowing of the funnel is intended to represent the lack of distinction between personality types by the time they come to commit an offence. This is intended to reflect the findings of Studies 3 and 4 in which offenders with different personalities, and vulnerability factors associated with these personalities could not be distinguished in terms of their offending risk or behaviour.

So to summarise this section, according to this diagram, an individual’s personality, in terms of the Big Five, will affect what personality extremes an individual may manifest. These, in turn are likely to influence the kinds of vulnerability factors they develop. The presence of

vulnerability factors increases the likelihood that the individual will develop criminogenic needs. In turn, given the right set of circumstances, these will influence the commission of an offence. But by the time the offence occurs there need not be any clear evidence linking the offending behaviour back to personality. In fact the results of Studies 2 (in terms of the psychometrics related to sexual attitudes at least), 3 and 4 (in terms of offending behaviour) suggest that the personality types lose their distinction at the criminogenic needs stage.

The results of the present studies have some further theoretical implications for how we construe such offending. Sexual offending against children is commonly described as “multiply-determined” thereby avoiding the improbable expectation that a single cause might determine the behaviour. The diagram above accommodates this by indicating that a number of criminogenic needs will likely be present proximally in order for an offence to occur. The results of Study 1 suggest that very different people (at least in terms of their personality profiles) can carry out sexual offences against children that look very similar (at least in terms of how police record details of their behaviour as reported in Study 4). So these findings not only support the notion of multiple-determinism, they are an illustration of *equifinality*.

Equifinality is a concept derived from systems theory in which the “final state of any living system may be reached from different initial conditions and in different ways” (Miller, 1978). This notion takes multiple determinism a further step and argues that not only are a range of factors required to account for the occurrence of sexual offending against children but that different sets of factors may account for it in different people. This will be evident to the clinician familiar with developing offence chains.

Moffit’s (1993) notions of *cumulative* and *interactional continuity*¹⁴ may offer mechanisms that play a part in steering individuals with very different personality styles along pathways to developing personality extremes and vulnerability factors which affect the development of criminogenic needs and project the individual towards sexual offending, partly in response to unmet needs, and partly in response to the limitations that their personality style endows them with to meet these needs.

Furthermore, what is being proposed here has some similarities with parts of Hall & Hirschman’s (1992) Quadrapartite Theory (discussed in Chapter 2 of the Introduction). According to Hall & Hirschman, the enduring trait variables of some child molesters interact

¹⁴ In cumulative continuity an individual’s interactional style channels them into environments that reinforce that style. In interactional continuity an individual’s style evokes reciprocal sustaining responses from others.

with state and situation dependent variables, and additional environmental factors, to provide the context for sexual offending and modulate the likelihood of its occurrence. They drew on research indicating that early experiences may create lasting personality problems that increase the likelihood of later sexual offending against children (e.g., Bard, Carter, Cerce, Knight, Rosenberg, & Schneider, 1987) and account for the chronicity and severity of sexual behaviour with children that is not accounted for by the state and situational variables. The current approach does not take the further steps taken by Hall & Hirschman in which they identify “primary motivators” for sexual offending. Rather, the picture that emerges from the present studies is that while more proximal factors (as in Figure 2.16) are necessary for sexual offending to occur, (e.g., offence related cognitions, the presence of a victim) these tend to combine to lead to offending rather than one factor attaining primacy over the others. Moreover there is not a single set of enduring trait variables that prime or lead an individual towards sexual offending against children.

The pathways model of Ward & Hudson (1998b), which is presently showing considerable promise in terms of accounting for various motives and means of committing sexual offences against children, at first does not appear to be completely consistent with the notion of equifinality presented here. Ward & Hudson’s model covers events that are relatively proximal to the offending behaviour. The first phase in their pathways model is initiated by an external triggering event. Given this it is possible that the four pathways proposed by Ward and Hudson could sit in the diagram in Figure 2.16 close to the right hand side within the narrow part of the funnel created by the directional arrows. How an offender “arrives” at the start of their pathway has not been clearly defined, nor have the pathways been extended back towards more distal events. So it remains possible that the processes outlined above (through which a range of personality extremes contribute to the development of vulnerabilities, which in turn prompt criminogenic needs) take the individual to Ward & Hudson’s triggering event “primed” for offending.

If the above is accepted as a possibility then a further question becomes whether an offender arrives at the triggering event primed to take a particular path. In this respect it possible to speculate further, considering connections between the findings of Ward & Hudson, and the application of personality constructs to the understanding of child molestation. As discussed in Chapter 2, Ward & Hudson propose four pathways (approach-automatic, approach-explicit avoidant-passive, and avoidant-active), related to the two broad classes of goals associated with sexual offending. It is tempting, for instance, to associate the two pathways that are associated

with approach or acquisition goals to the two clusters high on hostility (Clusters 1 and 2) in that these offenders, arguably, use hostility instrumentally to achieve the goal of sexual gratification. Beyond that it becomes difficult to tell which of the clusters would be inclined to take the automatic path and which would take the explicit path.

From this view Clusters 3 and 4 might be more likely to take the avoidant pathways. Cluster 4 is, in general terms, prone to using avoidant and passive strategies, and this might extend to their sexual offending through an inability to control sexually deviant intentions through under-regulation or disinhibition. Cluster 3 consists of conventional individuals who could, conceivably, take the avoidant-active or misregulation pathway that involves an active attempt to avoid sexual offending through control of deviant thoughts, fantasies, or affective states that threaten to lead to loss of control. Selected strategies however are not appropriate or sufficient, and paradoxically increase the probability of an offence occurring. The offender might, for instance mistakenly use alcohol or drugs in an attempt to suppress the desire for illicit sex, or indulge in pornography as a means of exhausting desire.

Attempts were made during the final stages of this research to access the original data used by Ward and Hudson in order to test some of these speculations. Their research was carried out at Kia Marama and may have, coincidentally, included some subjects who were in the present studies. The intention of this search was to determine if the offenders who took the different pathways proposed by Ward and Hudson differed in terms of their personality and membership to the four clusters found in Study 1. Regrettably it was not possible to locate these data or even the pathways identified for each offender at Kia Marama, so the possible connections between cluster membership and offence pathways could not be tested.

3.8 Conclusions and Closing Remarks

The construct of personality has been generally overlooked in current understandings of child sexual offending. Much of the research on personality with child molesters has searched for a “classic” or typical personality profile for these men. By now it should be clear that the prospects of successfully revealing this are low. We know that on average child molesters are different from non-offenders in some respects related to personality. These were covered in Chapter 2. Promising work has been carried out working back from the offending behaviour to identify *aposteriori* groups such as those found by Canter, Hughes, & Kirby (1998). The groupings however, largely reflect the offending behaviour rather than constructs that go beyond this such as personality.

Although previous authors (e.g. Marshall & Barbaree, 1990) have acknowledged a likely association between “offender characteristics” and child sex offending, attempts to integrate personality attributes into an understanding of sexual offending have not utilised the construct of personality as it has been applied in these studies, but rather have typically focused on particular aspects of personality such as social skills, assertiveness, social perception, cognitions, empathy, self esteem, and intimacy (as the review in Chapter 2 illustrated). Furthermore those studies that have adopted the construct of personality used here have generally been limited to univariate studies of the population giving a mean profile such as the profile reported in Table 2.5, with the highest mean scores for the whole sample on the Schizoid, Avoidant and Dependent scales. This is generally consistent with the literature describing the child molester population. Multivariate analysis (cluster analysis) however reveals sub-groups of offenders whose mean profile is quite different from this expected profile.

Research with child molesters has moved forward a great deal in the last two decades and has entered a period where sophisticated means of unifying the range of empirical findings of the period are now being tested and explored. There is still much to learn about sexual offending against children, the people who perpetrate these offences, and the best means to intervene effectively to prevent it from recurring, or indeed preventing it. Understanding such complex human behaviour was never going to be a simple task. These four studies have been an exploration into the role of personality in understanding the diversity of individuals who offend against children. They show that personality has a role in organising some of the factors known to contribute to offending but stops well short of accounting for such offending.

This study has not been able to establish a link between personality and the offending behaviour of child molesters. This finding suggests that while personality as a construct may be useful as an organizing heuristic for factors considered in a clinical context as important to address in the treatment of sex offenders, it does not have demonstrable utility as a taxonomic framework for sexual offending behaviour. That is, while it may assist to understand some of the needs that offenders seek to meet in their offending it do not appear to predict *how* they go about having these needs met in terms of offending.

The findings of Studies 1 and 2 do have some implications for the treatment of sexual offending against children. Opinions remain divided on the effectiveness of treatment for sex offenders. Marshall is cautiously optimistic regarding outcomes while Quinsey remains sceptical. At best

outcomes from standard treatment programmes are modest. As noted it may be necessary to prove only relatively small effects of treatment in order to demonstrate the cost effectiveness of treating sex offenders (Prentky & Burgess, 1990) and it could be that small further gains can be made by refining the delivery of treatment to offenders based on their personality style and the implications this has for so-called vulnerability factors and the criminogenic needs that lead to offending.

Although now well established, the connections between personality and subsequent behaviour (including offending behaviour) have tended to be at a fairly gross level, finding broad differences between offenders and non-offenders (Schuessler & Cressey, 1950; Waldo & Dinitz, 1967); Tennenbaum, 1977). Andrews & Bonta's (1998) conclusion that the major correlates of criminal behaviour are based in personality, and Andrews & Wormith's (1989) ranking of temperamental and personality factors as the third most major contributor to crime (behind anti-social and pro-criminal attitudes, and having pro-criminal associates and isolation from anti-criminal others) are testimony to the role of personality but also a reflection of its limitations in accounting for offending behaviour. The top two places in the ranking, attitudes and interpersonal behaviour, are closer to the "middle ground" between personality and behaviour, a possibly a more fruitful domain of inquiry and exploration.

It may be that seeking a connection between personality type and behaviour while sexually offending against a child was simply too long a bow to draw. The current findings support the earlier conclusion (Maletsky, 1991) that there are currently no agreed upon or scientifically verifiable persistent traits or behaviour patterns in the child molester population. Child molesters come from all walks of life and enter offending with a range of personal attributes and deficits. What takes them beyond this point and into the proximal realm of offending could not be determined from the present studies.

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Appendices

Appendix 1: Kia Marama Demographic Questionnaire

DEMOGRAPHIC QUESTIONNAIRE

PRN: _____

SURNAME: _____ FIRST NAMES: _____

DOB: ____/____/____

AGE: _____

REFERRING PRISON: _____

DATE OF PROGRAMME INTAKE: ____/____/____

THERAPIST (First name only): _____

OFFENCE-RELATED DETAILS:

1) CURRENT OFFENCE(S) (tick)

- ☐ Murder/Manslaughter
- ☐ Sexual violation/rape
- ☐ Attempted sexual violation/rape
- ☐ Assault with intent to commit sexual violation/rape
- ☐ Sodomy/anal intercourse
- ☐ Unlawful sexual connection/unlawful sexual intercourse
- ☐ Indecent assault/indecent act/permitting or inducing or procuring an indecent act
- ☐ Incest
- ☐ Non-sexual offence

2) LENGTH OF CURRENT SENTENCE:

Specify: _____

- ☐ Preventive Detention
- ☐ Life

VICTIM

3) NUMBER OF PREVIOUS CONVICTIONS FOR SEXUAL

Specify: _____

4) NUMBER OF PREVIOUS PRISON SENTENCES FOR SEXUAL OFFENCES:

Specify: _____

5) NUMBER OF CONVICTIONS FOR OTHER MAJOR OFFENCES:

Specify: _____

6) GENDER OF CHILD VICTIMS OF SEXUAL OFFENCES:

- 1. Male
- 2. Female
- 3. Both

7) AGE OF MOST RECENT VICTIM(S)

Specify: _____

8) OFFENDER'S PREFERRED

GENDER:

- 1. Male
- 2. Female
- 3. Both

9) OFFENDER'S PREFERRED VICTIM AGE:

1. 0 – 5 years
2. 6 – 11 years (pre-pubescent)
3. 12 – 15 years (pubescent)
4. Indiscriminate

10) RELATIONSHIP OF OFFENDER TO VICTIM(S):

1. Natural father
2. Stepfather/adopted father
3. Foster father/defacto father
4. Grandfather
5. Uncle
6. Brother/stepbrother
7. Cousin or other relative
8. Unrelated, but known to victim
9. Unrelated and unknown to victim

11) NUMBER OF VICTIMS OVER OFFENDING CAREER (OFFENDER'S AND/OR THERAPIST'S ESTIMATE)

Specify: _____

12) OFFENDING CAREER COMMENCED PRE-ADULTHOOD (AGE 20):

1. Yes
2. No

13) DURATION OF OFFENDING CAREER (YEARS):

Specify: _____

14) OFFENDING INVOLVED THREATS

1. Yes
2. No

15) OFFENDING INVOLVED WEAPON:

1. Yes
2. No

16) OFFENDING INVOLVED VIOLENCE:

1. Yes
2. No

17) OFFENDING INVOLVED PHYSICAL INJURY TO VICTIM

1. Yes
2. No

18) OFFENDING INVOLVED ALCOHOL/DRUG USE:

1. Yes
2. No

19) AROUSAL PROFILE:

1. Adult
2. Adult/Teen
3. Adult/Child
4. Teen
5. Teen/Child
6. Child
7. Non-discriminating
8. Non-responder

20) SEXUAL ORIENTATION (ADULT):

1. Heterosexual
2. Heterosexual with homosexual leanings
3. Homosexual
4. Bi-sexual

21) USES OR HAS USED PORNOGRAPHY:

1. No
2. Minor
3. Occasional
4. Frequent

**22) HAS HAD TREATMENT FOR
SEXUAL BEHAVIOUR PRIOR TO
PRESENT ARREST:**

1. Yes 2. No

23) OTHER PARAPHILIAS:

1. Rape
 2. Sado/Masochism
 3. Fetishism
 4. Voyeurism
 5. Exhibitionism
 6. Transvestism
 7. Bestialism
 8. Other
(Specify)
-

**SOCIAL HISTORY: CHILDHOOD/
ADOLESCENCE**

24) COUNTRY OF BIRTH

1. New Zealand
 2. Australia
 3. England
 4. Scotland
 5. The Netherlands
 6. Western Samoa
 7. Cook Islands
 8. Other
(Specify)
-

25) ETHNIC ORIGIN

1. European
 2. New Zealand Maori
 3. Samoan
 4. Cook Island Maori
 5. Niuean
 6. Tongan
 7. Chinese
 8. Indian
 9. Other
(Specify)
-

26) WAS ADOPTED:

1. Yes 2. No

27) WAS FOSTERED:

1. Yes 2. No

28) FATHERS OCCUPATION:

1. Professional/managerial
2. Other white collar/farming
3. Clerical/sales
4. Trades/skilled labourer
5. Labourer/unskilled
6. Unemployed/Beneficiary
7. Not applicable

**29) PARENTS
SEPARATED/DIVORCED WHEN
OFFENDER STILL AT HOME:**

1. Yes 2. No

**30) STABILITY OF FAMILY OF
ORIGIN:**

1. Normal
2. Moderate difficulties
3. Severe difficulties

**31) PARENT HAD ALCOHOL
PROBLEMS:**

1. No
2. Mother
3. Father
4. Both

**32) PARENT HAD PSYCHIATRIC
PROBLEMS:**

1. No
 2. Mother
 3. Father
 4. Both
(Specify)
-

33) EDUCATIONAL LEVEL OF ATTAINMENT:

1. Primary only or less
2. Form 3 – 4
3. Form 5
4. School Cert
5. Form 6
6. UE
7. Form 7
8. Polytec diploma/Teachers College
9. University undergraduate
10. Bachelors
11. Masters/Post-grad Diploma
12. PhD

SOCIAL HISTORY: ADULTHOOD**34) MARITAL STATUS:**

1. Never married
2. Married, first time
3. Remarried
4. Separated
5. Divorced
6. Widowed
7. Defacto relationship

35) WAS LIVING WITH A PARTNER BEFORE PRESENT ARREST:

1. Yes 2. No

If yes, intends resuming marriage/
Relationship upon release:

1. Yes
2. No
3. Unsure

36) NUMBER OF MARRIAGE-LIKE RELATIONSHIPS

37) DURATION OF MOST IMPORTANT RELATIONSHIP:

Number of years:

38) DEGREE OF SATISFACTION WITH MOST IMPORTANT RELATIONSHIP:

1. High
2. Moderate
3. Low

39) NUMBER OF CHILDREN IN THIS RELATIONSHIP: _____**40) WAS LIVING WITH CHILDREN BEFORE ARREST:**

1. Yes 2. No

41) SEXUAL DYSFUNCTION:

1. None
2. Premature ejaculation
3. Retarded ejaculation
4. Impotence
5. Other
(Specify) _____

42) HOME OWNERSHIP:

1. Yes 2. No

42) MAIN SOURCE OF INCOME PRE-IMPRISONMENT:

1. Wage/salary/self-employ
2. Investments/savings
3. Benefit (state type)
4. None/living on another's Income

44) OCCUPATIONAL LEVEL:

1. Professional/managerial
2. Other white collar/farming
3. Clerical/sales
4. Trades/skilled labourer
5. Labourer/unskilled
6. Unemployed
7. Sickness/invalid/DP Beneficiary

45) INCOME BRACKET:

1. Less than \$20,000
2. \$20 – 30,000
3. \$31 – 40,000
4. Greater than \$40,000

46) STABILITY OF WORK HISTORY:

1. Good
2. Adequate
3. Marginal
4. Poor

47) LITERACY PROBLEMS PRESENT:

1. None
2. Mild
3. Moderate
4. Severe

48) ASSESSED IQ:

Specify score: _____

49) PHYSICAL ABNORMALITY/ DEFECT/DISABILITY PRESENT:

1. Yes
2. No

50) PSYCHIATRIC ILLNESS:

1. Yes
2. No

51) ALCOHOL PROBLEM:

a) at any time: 1. Yes 2. No

b) in year before arrest: 1. Yes 2. No

52) DRUG PROBLEM:

1. Yes 2. No

(Specify type): _____

53) RELIGIOUS DENOMINATION:

1. Protestant
2. Roman Catholic
3. Seventh Day Adventist
4. Mormon
5. Jehovah's Witness
6. Ratana/Ringatu
7. None
8. Other

54) PRACTISING RELIGION PRIOR TO

ARREST:

1. Yes 2. No

55) HAS HAD RELIGIOUS CONVERSION/RENEWAL SINCE ARREST:

1. Yes 2. No

Appendix 2: Coding Checklist for Offending Behaviour

and

Number of Offenders per Cluster Where Evidence Was Found For the Item

* Denotes items directly from K. Kaufman Modus Operandi Perpetrator Questionnaire (1994)

Note: P= perpetrator, V= victim

	Cluster				Chi ²	p
	1	2	3	4		
Total subjects available per cluster	28	15	23	20		
1. Strategies with Victim's Parents/ Caregivers						
1.1 P in a caregiver role to V or a family member	19	5	15	12	5.3779	0.1461
1.2 Befriended parents/ caregiver/ established relationship with parent(s)*	12	9	6	5	6.2108	0.1018
1.3 V's parents knew of offending but did not report it	4	2	3	3	0.0414	0.9977
1.4 P offered to baby-sit/ mind V or siblings*	4	3	3	1	1.8445	0.6052
1.5 V's parents expressed concern re P's contact with V	3	2	3	1	0.9342	0.8171
1.6 P established access to V without their parents knowing	0	3	4	0	9.7082	0.0212
1.7 V's parents confront P re suspicion of offending	2	1	3	0	2.807	0.4222
1.8 P is in a position of responsibility (school, church etc) re V	0	1	2	1	2.3570	0.5016
1.9 P helped V's parents around house*	1	1	0	1	1.4177	0.7013
1.10 V friends with P's own child	1	0	0	1	1.725	0.6312
1.11 P offered to drive/ walk V to/from school/ pool*	1	0	1	0	1.4387	0.6964
1.12 P invited V's parents to join activities	0	0	0	1	3.3388	0.3422
*						
1.13 P a neighbour of V's family	0	0	0	1	3.3388	0.3422

	Cluster				Chi ²	p
	1	2	3	4		
2. Gaining Trust of Victim						
2.1 P touched V non-sexually (hugs, back rubs, tickling etc)*	7	6	9	7	1.5332	0.6746
2.2 P used no or minimal action to gain trust; demanded / forced sex	8	6	6	7	1.040	0.7913
2.3 P showed V affection	7	4	8	6	0.6393	0.8873
2.4 P played with V*	8	4	4	6	1.1562	0.7635
2.5 P gave V or others food, toys, money, alcohol etc*	6	5	4	6	1.7345	0.6292
2.6 P gave V lots of attention*	5	2	5	5	0.8576	0.8356
2.7 P used parental or caregiver position	6	2	5	1	3.0102	0.39
2.8 P spent lots of time with V*	4	2	2	5	2.3138	0.5098
2.9 P already held position of trust with V	8	2	0	2	8.9781	0.029
2.10 P tricked V into feeling safe*	3	2	3	2	0.1616	0.9835
2.11 P treated V like an adult*	3	2	1	3	1.4910	0.6843
2.12 P showed V pornography*	3	4	1	1	5.7600	0.1239
2.13 P took V places	3	3	1	2	2.3804	0.4972
2.14 P allowed V to do things prohibited by parents	2	1	2	2	0.1828	0.9803
2.15 P told V personal things*	2	1	0	3	3.7121	0.2942
2.16 P told V how special they are*	2	2	1	1	1.3004	0.7290
2.17 P talked to V about sex before sexual contact	3	0	1	1	2.2682	0.5186
2.18 P stuck up for V against others (parents, friends, etc)*	0	2	1	1	3.9257	0.2696
2.19 P said nothing to V	0	0	1	1	2.067	0.5584
2.20 P talked to V like he was their age*	1	0	0	0	2.0957	0.5527
2.21 P protected V from others who might hurt them*	0	1	0	0	4.789	0.1879
2.22 P told V he knows parents/ relatives/etc*	0	0	0	1	3.3388	0.3422

	Cluster				Chi ²	p
	1	2	3	4		
2.23 P had other child say how much fun it is or encourage*	1	0	0	0	2.0957	0.5527
2.24 P used V's interest in something (hobby etc)	1	0	0	0	2.0957	0.5527
2.25 Vs were particularly vulnerable or needy	0	0	1	0	2.7713	0.4282
3. Situations Enabling Time Alone With Victim						
3.1 P babysat or provided care to V or siblings*	18	9	15	13	0.1284	0.9882
3.2 P was home alone with V with consent of parent*	17	7	14	9	1.9116	0.5909
3.3 P had V sleep in his bed*	15	2	9	4	9.5047	0.0232
3.4 P took V somewhere during the day with consent of parent*	11	3	2	7	7.1161	0.0683
3.5 P sneaked into V's bedroom at night / in morning*	6	5	5	7	1.7261	0.6311
3.6 P took V to isolated or out of the way place*	9	3	4	6	1.8941	0.5946
3.7 P took V for a car ride*	8	2	6	2	3.3243	0.3442
3.8 P bathed / showered V*	5	0	7	6	6.3799	0.0945
3.9 P tucked V in bed/ checked V in bed*	4	2	6	4	1.4961	0.6831
3.10 P watched TV with V*	8	1	3	2	4.8764	0.181
3.12 P took V camping*	2	0	2	2	1.5125	0.6793
3.13 P saw V on weekend visits*	3	1	1	1	0.9702	0.8084
3.14 P worked at different times to (one of) V's parents*	1	2	1	1	1.9204	0.589
3.15 P with V on holiday, family gathering*	1	2	0	1	3.7506	0.289
3.16 P took V swimming*	1	0	2	0	3.1180	0.3737
3.17 P had sole custody of V*	1	0	2	0	3.1180	0.3737
3.18 P in a different room to caregiver	1	0	0	1	1.725	0.6312
3.19 P took V to a park or playground*	0	1	1	0	2.801	0.4232

	Cluster				Chi ²	p
	1	2	3	4		
3.21 V involved in an organised activity with P	0	0	0	1	3.3388	0.3422
3.22 P had V stay up after parent(s) gone to bed*	1	0	0	0	2.0957	0.5527
3.23 P got up before V's parent(s) wake up	1	0	0	0	2.0957	0.5527

4. Locations & Situations in Which Perpetrator Isolated or Removed Victim

4.1 Family home	12	4	14	10	4.528	0.2097
4.2 P's home*	11	6	6	8	1.3543	0.7162
4.3 Isolated, out of the way places*	12	3	6	6	2.9311	0.4023
4.4 V's home	10	3	4	4	2.9214	0.4039
4.5 Babysitting/ care giving/ minding	5	1	5	3	1.5952	0.6604
4.6 P's place of employment	2	2	2	3	0.9773	0.8067
4.7 Friend's or other family member's home*	7	1	1	0	9.8003	0.0203
4.8 P visited V's home without their parents' knowledge or consent	1	1	0	0	2.459	0.4826
4.9 Organised activity (sports, clubs, etc)*	1	0	0	1	1.725	0.6312
4.10 Swimming pool*	0	0	0	2	6.7571	0.08
4.11 Playgrounds/ parks*	0	1	1	0	2.801	0.4232
4.12 V visited P's place	1	0	0	0	2.0957	0.5527
4.13 P removed V while asleep	0	1	0	0	4.789	0.1879
4.14 Church	0	0	0	1	3.3388	0.3422
4.15 Close neighbourhood*	1	0	0	0	2.0957	0.5527
4.16 P did not disguise offending or remove V	0	0	0	1	3.3388	0.3422
4.17 Offending occurred in public place	0	0	1	0	2.7713	0.4282

5. Enticements, Means of Exacting Victim Compliance

5.1 P tells / instructs V to do as told (uses age, authority, trust to gain compliance)	18	6	11	12	3.011	0.3899
5.2 P used force or constraint*	8	7	5	3	4.788	0.1879
5.3 P engendered fear in any other way	6	5	6	3	1.7729	0.6208

	Cluster				Chi ²	p
	1	2	3	4		
5.4 P promised V rewards*	2	4	5	4	3.3348	0.3428
5.5 P threatened trouble if V did not comply*	7	3	2	2	3.2639	0.3527
5.6 P gave V toys, food, money, alcohol/drugs, etc*	5	2	5	2	1.2283	0.7462
5.7 P let V see him angry with another*	3	3	1	1	3.2087	0.3605
5.8 P told V he can be trusted*	2	1	1	3	1.7819	0.6188
5.9 P let V see him with other children*	2	1	0	2	2.1699	0.5379
5.10 P threatened harm to V if they did not comply*	2	1	0	2	2.1699	0.537
5.11 P did not attempt to entice/ exact compliance	0	1	2	2	2.7371	0.4339
5.12 P threatened to stop privileges to V	2	1	1	0	1.5097	0.6800
5.13 V asleep	3	1	0	0	4.5559	0.2073
5.14 P threatened harm to family*	2	1	0	1	1.6568	0.6465
5.15 P promised V fun	1	0	0	2	3.8929	0.2732
5.16 P had weapon present*	1	1	0	1	1.4177	0.7013
5.17 P used V's affection/ "crush" to get compliance	1	1	0	0	2.459	0.4826
5.18 P threatened harm to pets*	1	0	1	0	1.4387	0.6964
5.19 P used weapon	1	0	0	1	1.725	0.6312
5.20 P told V parent(s) agreed*	0	0	0	1	3.3388	0.3422
5.21 P defended V against others*	0	1	0	0	4.789	0.1879
5.22 P told V they're responsible for offending	1	0	0	0	2.0957	0.5527
5.23 P threatened harm to others	1	0	0	0	2.0957	0.5527
5.24 P provided pet for V to play with*	0	0	1	0	2.7713	0.4282
5.25 V was an infant	1	0	0	0	2.0957	0.5527

	Cluster				Chi ²	p
	1	2	3	4		
6. Means of Involving Victim in Sexual Activity						
6.1 P used physical force* or unspoken intimidation	14	6	9	11	1.4755	0.6879
6.2 P touched V increasingly sexually*	12	5	12	10	1.5508	0.6706
6.3 P used parental authority / position	9	5	13	9	3.6469	0.3022
6.4 P started sex as if it were no big deal*	8	7	10	9	2.1265	0.5465
6.5 P gave V non-sexual attention*	5	4	7	4	1.337	0.7201
6.6 P talked increasingly about sex*	4	4	5	3	1.3095	0.7268
6.7 P wore less clothing*	5	2	3	5	1.281	0.7335
6.8 P showed V porn*	4	4	2	1	4.0792	0.2530
6.9 P gave V gifts etc*	3	2	3	2	0.1616	0.9835
6.10 P got V curious about sex*	4	1	2	2	0.7486	0.8617
6.11 P told V he will love them if they comply or sex is a means of showing love*	2	3	0	2	4.9898	0.1725
6.12 P got V drunk/drugged*	4	1	1	0	4.0519	0.2559
6.13 P threatened to use weapon*	2	2	0	1	3.0830	0.3790
6.14 P threatened to kill V or others*	1	2	0	2	3.8657	0.2763
6.15 P got V sexually excited*	1	0	1	2	2.1003	0.5518
6.16 P had V watch him have sex with other Vs* / V aware of other victims	0	1	1	2	2.7982	0.423
6.17 P threatened to hit V*	4	0	0	0	8.6898	0.033
6.18 P started sex when V upset/ needy*	0	0	1	2	4.1235	0.2484
6.19 V was asleep	2	0	1	0	2.4262	0.4887
6.20 P threatened to hurt family members, pet etc*	1	1	0	1	1.4177	0.7013
6.21 P hurt family member in front of V*	2	1	0	0	3.1150	0.3742
6.22 P had V's friends say it's ok or had another child present	1	0	0	1	1.725	0.631
6.23 P had V behave sexually with other children*	0	0	0	2	6.7571	0.08

	Cluster				Chi ²	p
	1	2	3	4		
6.24 P played with V	0	0	2	0	5.5212	0.137
6.25 P threatened to tell on V for having sex*	1	0	0	1	1.725	0.6312
6.26 P bought V togs / underwear / clothes*	0	1	0	0	4.789	0.1879
6.27 P had V watch him have sex with adults*	0	0	0	1	3.3388	0.3422
6.28 P had V watch other children engage in sex*	0	0	0	1	3.3388	0.3422
6.29 P took photos or videos of V naked*	0	0	0	1	3.3388	0.3422
6.30 P claimed loneliness without V's mother	1	0	0	0	2.0957	0.5527
6.31 Offending did not require V compliance / participation (e.g. very young)	1	0	0	0	2.0957	0.5527
6.32 P told V that touching is good, normal	0	0	0	1	3.3388	0.3422
6.33 P disguised offending (e.g. as play)	0	0	1	0	2.7713	0.4282
6.34 P threatened to make up things about V*	1	0	0	0	2.0957	0.5527
6.35 P put a weapon where V could see it*	0	0	0	1	3.3388	0.3422
6.36 P hurt a pet in front of V*	1	0	0	0	2.0957	0.5527
6.37 P prevented V's physical escape	0	1	0	0	4.7222	0.1933
7. Offence Behaviour						
7.1 P touched V's genitals*	22	13	17	19	3.8286	0.2805
7.2 P ejaculated in presence of V	17	8	8	14	5.9904	0.1121
7.3 P removed any clothing from V	14	8	12	10	0.0636	0.9958
7.4 P put penis between V's legs	17	7	9	11	2.5942	0.4585
7.5 P lay on top of V	10	9	11	12	3.6846	0.2976
7.6 P had V touch P's genitals	15	6	9	11	1.8477	0.604
7.7 P touched V's breasts*	14	5	11	10	1.2978	0.7296
7.8 P made skin contact with V	15	7	10	8	0.9870	0.8043

	Cluster				Chi ²	p
	1	2	3	4		
7.9 P attempted to put penis in V's vagina*	15	8	8	8	2.4166	0.4905
7.10 P made V remove any clothing	14	6	8	10	1.589	0.6618
7.11 P put finger in V's vagina*	12	6	10	9	0.0900	0.993
7.12 P put penis into V's vagina*	15	8	6	6	5.8977	0.1167
7.13 P put mouth / tongue on V's genitals*	13	3	8	8	3.0446	0.3848
7.14 P put his penis in V's mouth*	12	5	6	8	1.7365	0.6288
7.15 P masturbated in front of V	11	4	6	6	1.2840	0.7329
7.16 P rubbed penis against V's body in simulation of intercourse	5	6	7	8	3.6165	0.3059
7.17 P touched V's bottom*	8	2	8	7	2.5100	0.4734
7.18 P embraced V	5	3	9	6	3.3863	0.3358
7.19 P kissed V's mouth	7	1	6	7	3.814	0.2822
7.20 P exhibited himself in front of V	7	2	4	6	1.8280	0.6088
7.21 P ejaculated onto V's body	4	3	3	7	4.1126	0.2495
7.22 P ejaculated into V's vagina	6	5	1	5	5.5825	0.1338
7.23 P held V's hand on P's penis*	6	2	4	4	0.4707	0.9252
7.24 P put penis into V's anus*	5	2	2	7	5.3270	0.1493
7.25 P attempted to put penis in V's anus*	4	2	4	5	1.163	0.7618
7.26 P used lubricant	7	3	2	3	2.4836	0.4782
7.27 P ejaculated into V's mouth	4	2	2	5	2.3138	0.5098
7.28 P used a towel	5	1	3	3	1.0528	0.7884
7.29 P watched V (e.g. in bath toilet)	5	0	4	2	3.4203	0.3312
7.30 P rubbed penis against V's body*	1	2	4	4	3.5057	0.3200
7.31 P masturbated V to orgasm*	2	0	2	4	4.4160	0.2199
7.32 P ejaculated into V's anus	2	0	2	3	2.6347	0.4514
7.33 P used condom	2	3	2	0	4.6409	0.2000
7.34 P showed V porn	4	1	1	1	2.1640	0.5390
7.35 P cut/ burned/ beat/ hit V*	2	1	0	3	3.7121	0.2942
7.36 P held hand over V's mouth	0	4	0	1	15.083	0.0017
7.37 P had V put penis in P's anus*	1	0	1	2	2.1003	0.5518
7.38 P used sexual devices	2	0	0	2	3.5358	0.3161
7.39 P involved co-offender	2	0	0	2	3.6827	0.2978

	Cluster				Chi ²	p
	1	2	3	4		
7.40 P kissed / sucked V's breasts	1	2	0	0	5.8731	0.1179
7.41 P put object in V's vagina*	2	0	1	0	2.4262	0.4887
7.42 P talked to V	2	0	0	1	2.6199	0.4540
7.43 P ignored V's complaints or distress	2	1	0	0	3.115	0.3742
7.44 P masturbated V	1	0	0	1	1.725	0.6312
7.45 P touched V's body all over*	0	0	1	1	2.0676	0.5584
7.46 P put finger in V's anus*	1	0	0	1	1.7258	0.6312
7.47 P made V sit astride P's penis	1	1	0	0	2.4595	0.4826
7.48 P tied V up*	0	0	1	1	2.0676	0.5584
7.49 P took indecent photos or videos of V	0	1	0	1	3.0884	0.378
7.50 P removed or abducted V	0	1	1	0	2.8013	0.4232
7.51 P used an animal in sexual activity	1	0	0	1	1.7258	0.6312
7.52 P told V to expose breasts	0	0	1	0	2.7713	0.4282
7.53 P asked V for sex	0	0	1	0	2.7713	0.4282
7.54 P sat V on his lap	0	0	1	0	2.7713	0.4282
7.55 P had V touch P's butt	0	0	0	1	3.5150	0.3188
7.56 P had V put finger in P's anus*	0	0	0	1	3.3388	0.3422
7.57 P put tongue in V's ear	0	0	1	0	2.7713	0.4282
7.58 P had V put penis between P's legs in simulation of intercourse	0	0	0	1	3.3388	0.3422
7.59 P made V insert her finger in her vagina*	0	0	0	1	3.3388	0.3422
7.60 P covered V's face	0	0	0	1	3.3388	0.3422
7.61 P made V talk	0	1	0	0	4.789	0.1879
7.62 P watched co-offender have sex with V	1	0	0	0	2.0957	0.5527
7.63 P shaved V's pubic hair	0	1	0	0	4.789	0.1879

	Cluster				Chi ²	p
	1	2	3	4		
8. Methods Used to Ensure Victim Does Not Disclose Offending						
8.1 P made no apparent attempts to prevent V from disclosure	9	3	9	4	2.6536	0.4481
8.2 P told V not to tell anyone/ keep it a secret	7	4	5	8	2.0177	0.5687
8.3 P threatened to tie up / hurt/ injure V*	5	2	3	2	0.6364	0.888
8.4 P told V he will go to jail / get in trouble with police*	3	2	2	3	0.4789	0.9234
8.5 P gave V special privileges or rewards*	3	1	4	2	1.1771	0.758
8.6 P threatened to hurt others (family, friends, pet, etc)*	4	3	0	1	5.6565	0.1295
8.7 P told V ,V will go to jail* / V is responsible	4	0	1	1	3.7951	0.2844
8.8 P hurt V or others(family, fiends, pet) as a warning*	2	1	0	1	1.6568	0.6465
8.9 P told V their family/ parents would be split up	2	1	1	0	1.5097	0.6800
8.10 P threatened to withdraw privileges	2	1	0	0	3.1150	0.3742
8.11 P threatened to tell on V for having sex*	2	1	0	0	3.1150	0.3742
8.12 P said he will blame V if they tell	1	1	0	1	1.4429	0.695
8.13 P told V that offending is ok	1	1	0	1	1.4177	0.7013
8.14 P told V that news of offending would kill/ damage another	1	0	1	1	0.7289	0.8663
8.15 P told V parents wont love them if they find out*	2	0	0	0	4.2414	0.2365
8.16 P threatened suicide	0	1	1	0	2.801	0.4232
8.17 V too young to report / disclose offence	2	0	0	0	4.2414	0.2365
8.18 P promised to spend more time with V if they do not tell*	0	0	0	1	3.515	0.3188

	Cluster				Chi ²	p
	1	2	3	4		
8.19 P promised special privileges or rewards	0	0	0	1	3.3388	0.3422
8.20 P threatened to kill V	0	0	0	1	3.3388	0.3422
8.21 P said V would be taken away from family	0	0	1	0	2.7713	0.4282
8.22 P emphasised the wrongness of offence	1	0	0	0	2.0957	0.5527
8.23 P caused mistrust between V & caregiver	1	0	0	0	2.0957	0.5527
8.24 V raised to believe offending to be normal	0	0	1	0	2.7713	0.4282
8.25 V was unaware of offending (e.g. asleep)	1	0	0	0	2.0957	0.5527
8.26 P disregarded V's threats to tell	0	0	1	0	2.7713	0.4282
8.27 V believed they would be told off for telling	1	0	0	0	2.0957	0.5527